

THE AMERICAN ELEVATOR AND GRAIN TRADE

Printed in U. S. A. Entered as second-class matter June 26, 1885, at the Post Office at Chicago, Illinois, under Act of March 3rd, 1879 Established 1882

PUBLISHED BY { Mitchell Brothers Publishing Co. } A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS. { One Dollar Per Annum SINGLE COPIES, 15 CENTS

VOL. XLVII 431 South Dearborn Street, Chicago, Ill., July 15, 1928 NO. 1

Of Course

We want your business but we want it on a basis that will pay you as well as ourselves. We want it because we have proper facilities for handling it.

Don't be satisfied with slow returns or poor service; send your shipments to

McKenna & Strasser
GRAIN

60 Board of Trade
CHICAGO

GRAIN DRIERS
FEED MIXERS
FEEDERS
STEAM COILS
COOKERS
MOLASSES HEATERS
SPECIAL DRY.



ROTARY DRIERS
TRUCK DRIERS
STERILIZERS
FANS
STEAM TRAPS
OAT BLEACHERS
ING APPARATUS

WILLEY ELLIS COMPANY

Successors to
THE ELLIS DRIER COMPANY
1201-1229 So. Talman Avenue CHICAGO, U. S. A.

WE SELL
Dried Buttermilk
Dry Skim Milk

Fresh product packed 100 lb. burlaps and 25 lb. cotton bags, paper lined shipped from 40 plants.

FEED FORMULAS
FEED PLANT MACHINERY
PLANT INSPECTION

S. T. EDWARDS & CO.
110 S. Dearborn St. Chicago

FOLWELL-SINKS FORM LIFTING



JACKS
AND
STEEL YOKES
FOR
GRAIN ELEVATOR
SILO
AND
COAL PIT
CONSTRUCTION

NELSON MACHINE CO.
WAUKEGAN, ILL.

Caldwell Elevators and Conveyors

CALDWELL Helicoid and sectional flight screw conveyors, bucket elevators, apron and pan conveyors, belt conveyors, car spotters, transmission machinery, etc., give long and reliable service.

No matter what your needs may be in the elevating, conveying or power transmitting line, Caldwell equipment will prove a profitable investment. Caldwell experience and facilities are yours for the asking.

CHICAGO-NEW YORK-DALLAS

H. W. CALDWELL & SON CO.
LINK-BELT COMPANY, OWNER

Offices in Principal Cities

C-112

A PROVEN PROFIT MAKER FOR ELEVATOR DEALERS

TWENTY-FIVE per cent of all elevator and grain dealers have already added this line of Rose's Meat and Bone Meal to their general line of feeds and seeds, with the result that this has proven a winner in every way.

We have a very attractive proposition for Dealers, as Rose's Meat and Bone Meal is internationally distributed and backed by national advertising.

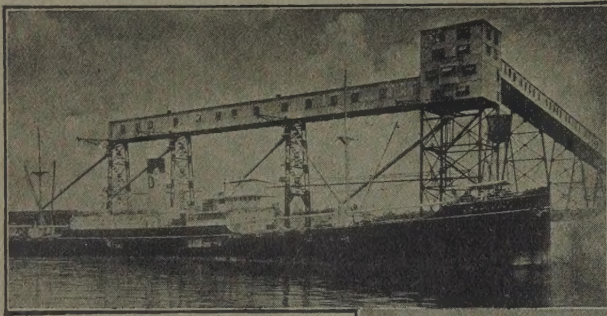
Rose's Meat and Bone Meal is a highly concentrated and balanced food for dogs and puppies and is recommended by the leading veterinarians, trainers, breeders and kennelmen of the country.

Write for Prices and Dealers' Proposition

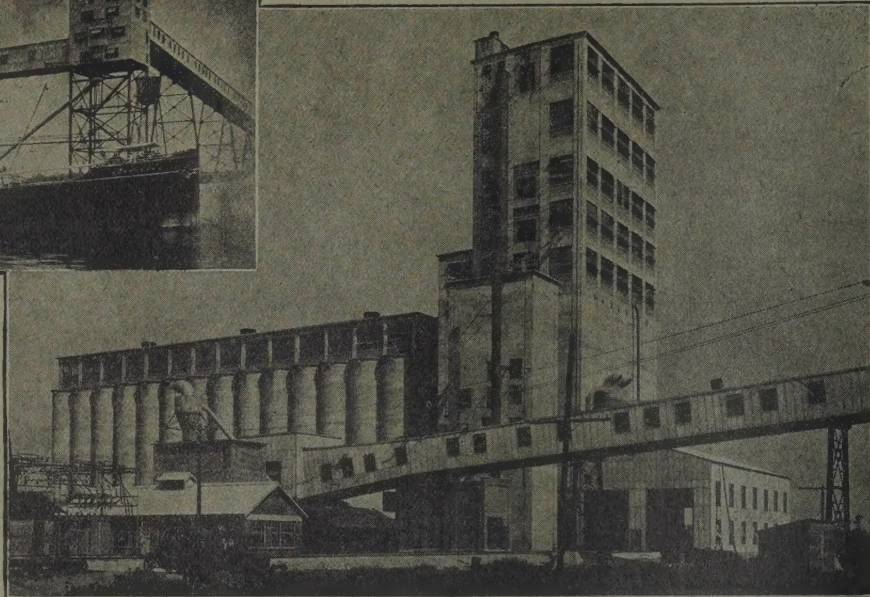
G. P. ROSE AND CO., Manufacturers, Box 568-E, NASHVILLE, TENN.

"They're Begging For It"





Public Grain Elevator, owned and operated by the Port Commission of Houston, Texas. Shipping gallery extension designed and erected by John S. Metcalf Co. Machinery and spouting by Webster Manufacturing Company.



50,000 Bushels per Hour With DIAMOND Grain Belt!

DEMANDS upon the big Public Grain Elevator at Houston, Texas, have increased so rapidly that it has been necessary to double its capacity by erecting an extension to the shipping gallery. Loading berths are now provided for two ships at one time.

The new gallery is equipped with some six thousand feet of Diamond 42-inch, 4-ply grain belt, with a total delivery capacity of 50,000 bu. per hour, distributing through any

of the seven additional dock spouts.

Diamond Grain Belts were chosen because the builders knew they would give—

Increased Capacity.

Speedy Handling.

A Steady Uninterrupted
Flow of Grain.

Whether your elevator is large or small, you are **SAFE** in specifying Diamond Belts.

THE DIAMOND RUBBER COMPANY, Inc., Akron, Ohio

Atlanta
Chicago

Boston
Dallas

Kansas City
Los Angeles

New York
Seattle

Philadelphia
San Francisco

Diamond

Rubber Belting ♦ Hose · Packing

"TESTED FOR A THIRD OF A CENTURY"

"JAY BEE" Capacities *exceed* "JAY BEE" Guarantee



Don't take only the manufacturer's word for what he claims his feed grinder will do. Find out what the users say. Claims must be verified. Check up on capacities, power consumption, and maintenance with the user.

"99 Reasons why the 'Jay Bee' is the Best Feed Grinder Made"

This book is written by "Jay Bee" users—most of whom have had several other types of feed grinders before getting their "Jay Bee"—and shows why you should buy a "Jay Bee" mill for unequalled performance and best money making possibilities. Send for this free book today.

There is only one way to know complete grinder satisfaction and profits. Get a "Jay Bee" now. We have a grinder for every requirement from 15 H.P. to 100 H.P. with belt, tex-rope, or direct-connected drives. Write for descriptive literature, prices, terms, and so forth.

Over 9,000 "Jay Bee" mills in use, proof of their unequalled performance.



Read the experience of the Hutsonville Roller Mills, Hutsonville, Illinois:

"We installed one 'Hammer type mill' in our plant whose manufacturer guaranteed us 2400 pounds of oats per hour through the $\frac{1}{8}$ " screen using a 30 H.P. 865 R.P.M. motor under load, equipped with a 24" diameter pulley—1200 pounds per hour was the best we could ever get. Using this same mill grinding oats through the $\frac{1}{16}$ " screen, 700 pounds per hour was our best. Even in getting these capacities our 30 H. P. motor continually developed a 50% overload and to have kept this up we are sure our motor would have soon burned up.

"The Manufacturer of 'Hammer type' mills who guarantees you 25 to 50% greater capacity than any other mill on the market may get away with such a guarantee providing you have never seen or do not know anything about a real Hammer mill. When any firm makes you such liberal claims we can truthfully say we believe it will be to your own personal interest to consult with the 'Jay Bee' Mill Man.

"We are operating your No. 2 Standard Jay Bee with a 30 H. P. 865 R. P. M. under load, equipped with a 24" diameter pulley. Our power rate is 5c for the first 500 K. W., 4c for the next 1000 and 3c for all over 1500. We use a $\frac{1}{16}$ "— $\frac{1}{8}$ "— $\frac{1}{4}$ "— $\frac{7}{16}$ " screens. Grinding oats through the $\frac{1}{8}$ " screen we get 2550 pounds per hour, with a steady feed we would secure a better capacity than this. Oats through the $\frac{1}{16}$ " screen run from 1700 pounds to 2000 pounds per hour."

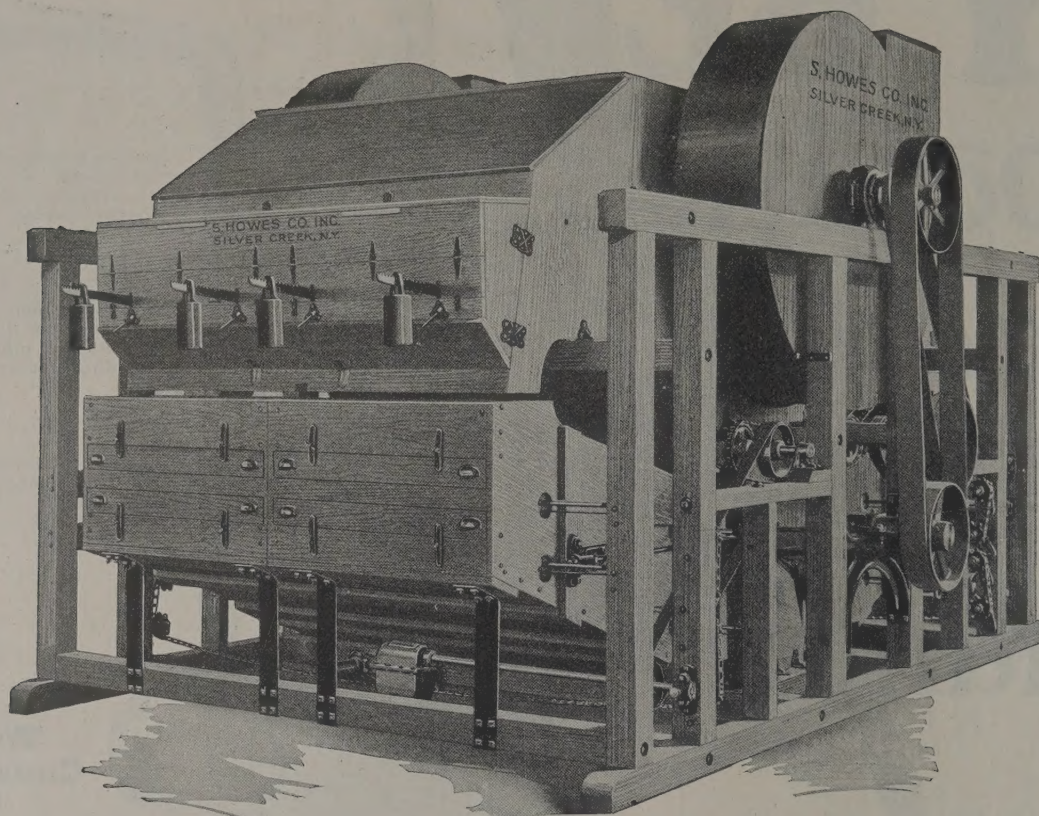
J. B. SEDBERRY, Inc. : 184 Hickory St. : UTICA, N. Y.
J. B. SEDBERRY CO., 819 Exchange Avenue, CHICAGO, ILL.
JAY BEE SALES CO.

442-444 Live Stock Exchange Bldg., Kansas City, Mo.

311-312 Terminal Warehouse Bldg., Omaha, Neb.



"Eureka" - "Invincible" Grain Cleaning Machinery



"Eureka" Double End Aspirator-Separator

This Magnificent Grain Cleaner, and a huge "Eureka" Oat Clipper, both Armored Machines, Ball Bearing equipped throughout, go into the New, Modern 3,000,000 Bushel Elevator of the Standard Milling Co., at Buffalo, N. Y. Where Quality Counts—You'll always find "Eurekas"

Ask for Our Separator Catalog

REPRESENTATIVES

Frank T. Rexford, West Lebanon, N. H.
P. A. Grotevant, 5834 South Park, Chicago, Ill.
J. Q. Smythe, 3142 Bellefontaine St., Indianapolis, Ind.
F. E. Dorsey, 3850 Wabash Ave., Kansas City, Mo.
Dwight Dill, 700 N. Winnetka Ave., Dallas, Texas.

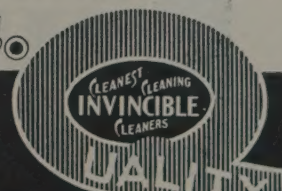
T. O. Van Nostrand, 666 W. Onondaga St., Syracuse, N. Y.
B. M. Estes, 1429 Allston St., Houston, Texas.
Geo. S. Boss, Grand Hotel, New York City.
W. M. Mentz, Sinks Grove, W. Va.
Bert Besley, Box 363, Fremont, O.

Special Sales Agents: Strong-Scott Mfg. Co., Minneapolis, Minn.

Canadian Representative: Strong-Scott Mfg. Co., Ltd., 50 Front St., E., Toronto, 2, Ont., and Winnipeg, Man.

S. HOWES CO., Inc.

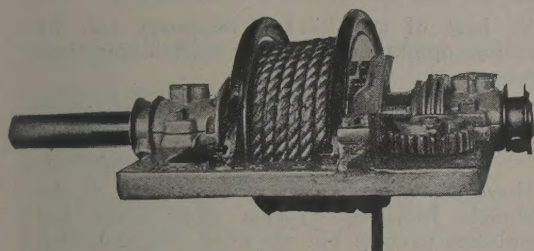
INVINCIBLE GRAIN CLEANER CO. SILVER CREEK, N.Y.



"EUREKA" - "INVINCIBLE" GRAIN CLEANING MACHINERY

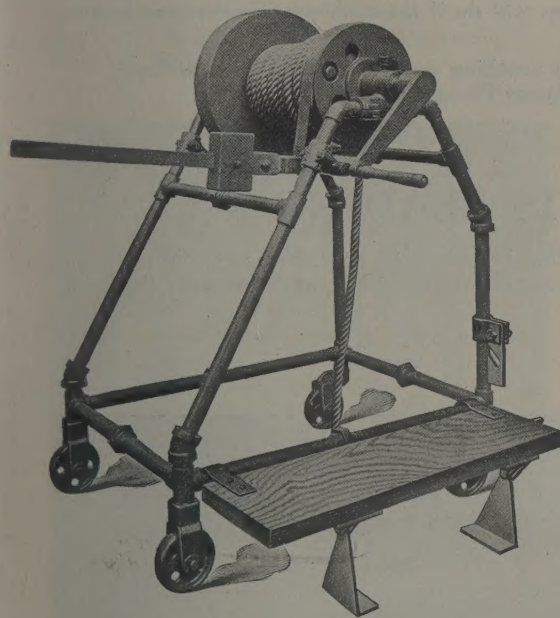
WELLER

GRAIN HANDLING EQUIPMENT



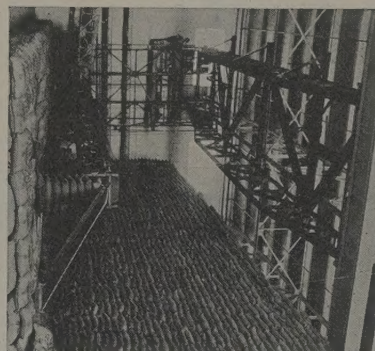
WELLER POWER SHOVEL

Positive in action—Pulls at any point—No counter weights—No counter weight ropes. Easy on the operator—Easy to install. Possible rope travel up to 100 feet.



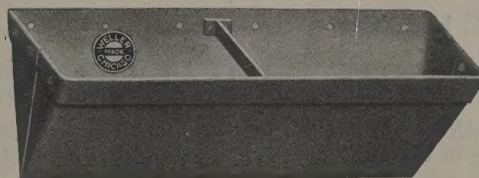
PORTABLE MAN HOIST

Designed primarily for lowering men into grain bins for cleaning or repair work.



BAG HANDLING EQUIPMENT

A Weller installation conveying and storing bags in warehouses. Also used for reclaiming, delivering bags to boats, cars or refineries.



WELLER "V" BUCKETS

New type one piece bucket. A bucket for high speed and perfect discharge.

WE ALSO MAKE

Favorite, Ear Corn, Buffalo, Rialto and Salem Elevator Buckets

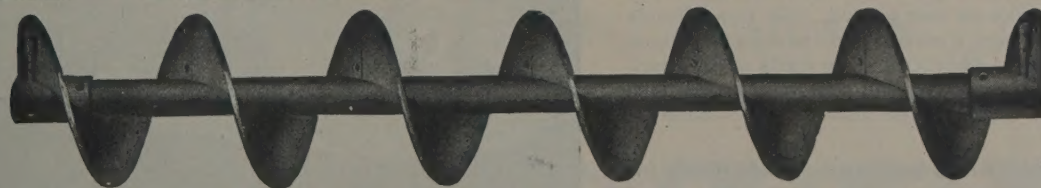
WELLER-MADE PRODUCTS

Are sold on the basis of quality. Installed in your plant they will help you to operate at full capacity at lowest cost for upkeep.



A few of the
Weller Products

Apron Conveyors
Belt Conveyors
Drag Conveyors
Mixing Conveyors
Spiral Conveyors
Bucket Elevators
Elevator Buckets
Elevator Boots
Elevator Casing
Elevator Heads
Barrel Elevators
Sack Elevators
Elevator Spouts
Loading Spouts
Dock Spouts
Truck Dumps
Wagon Dumps
Hoppers
Power Shovels
Car Pullers
Rope Drives
Pulleys
Hangers
Friction Clutches
Chain
Sprockets
Etc.



Weller Made Spiral Conveyors—Give the Service—Write for Prices

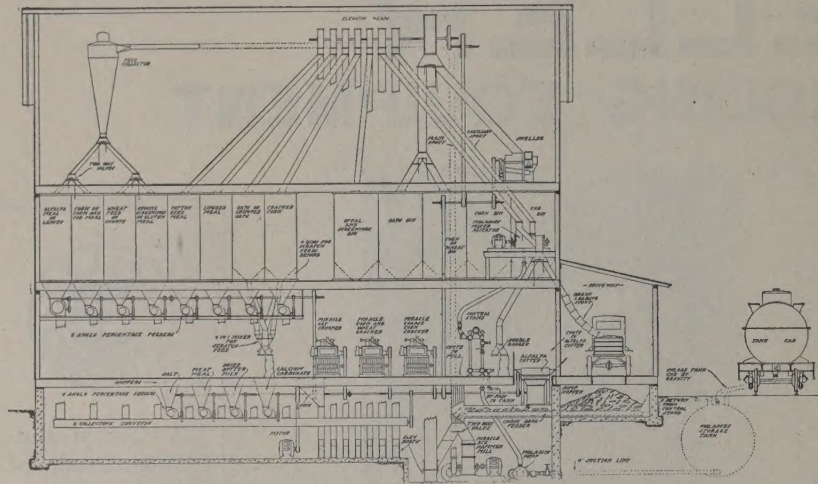
WELLER MFG. CO.

Main Office and Works,

1820-1856 N. Kostner Ave.

Chicago, Ill.

MIRACLE SWEET FEED SYSTEM



Our Miracle Molasses Process installed in model "T" sweet feed plant.

molasses on cotton seed, linseed, peanut, soy bean or any other greasy or oily meals—the hot processes cannot do this.

3. The Miracle Molasses Process does not require heat, so there is not the loss from evaporation, boiling over, etc.
4. The Miracle Molasses Process will not ball up the feed, as the hot process will do if the molasses is either too hot or too cold.

Successfully operating in 18 states, is making more money for its users than anything ever connected with milling. Two and one-half times the profit operating a feed mill with a Miracle Molasses Process than going it alone. Built in size to suit any plant.

Write for our booklet, THE MIRACLE SWEET FEED SYSTEM.

WHY THE MIRACLE ACE IS LEADING

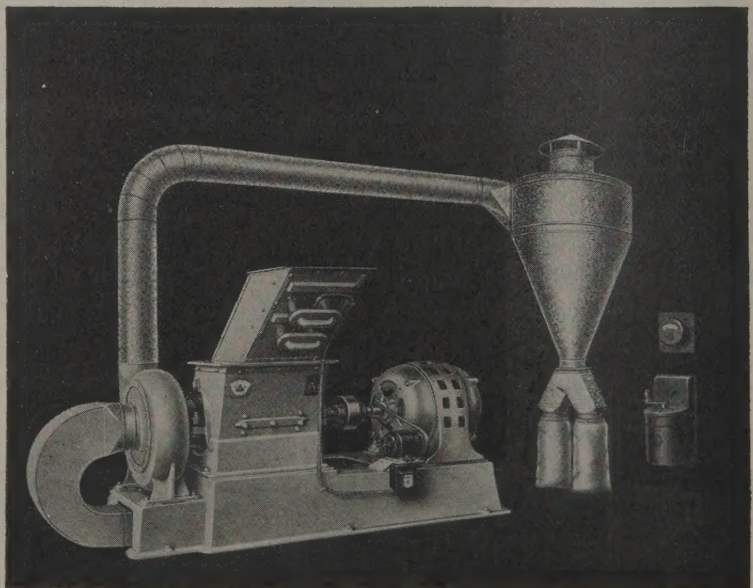
The MIRACLE ACE HAMMER MILL is the latest improvement in grinding machines of any character. More large Miracle Ace Mills are going in than all other hammer mills combined. These are the reasons it grinds cheaper than any other mill:

1. Our cast en bloc rotor, all in one piece, acts as a heavy flywheel.
2. Our heavy tee head hammers weighing forty-two ounces, both corrugated and slotted—the greatest crushing and cutting hammer used in grain grinding hammer mills.
3. Our front and back corrugated plates past which these heavy hammers are flying at 3600 per minute.
4. Our heavy one-piece mill housing forever preventing any side whip or vibration, enabling us to deliver all of the power to our one-piece rotor.

Money losses are made every day in hammer mill grinding because it's so much trouble to change screens. With a Miracle Ace you can actually change screens in one-half minute—no other hammer mill can come within a half-hour of this. Try it for yourself, take no one's word. Go to a Miracle Ace Mill and change a screen and then go to others, and do the same. Then count the parts of the various hammer mills and you will find that the Miracle Ace has 28% less parts than other hammer mills on the market.

These two things, which you can so easily prove for yourself will give you a revelation as to claims and performances.

Write for our booklet, The Miracle Ace Hammer Mill.



A Miracle Ace direct motor driven

THE ANGLO AMERICAN MILL COMPANY
246-257 Kennaday Ave. Owensboro, Ky.
The Worlds Largest Builders of Grain Grinding Machinery

MODERNIZE WITH WEBSTER EQUIPMENT

TRANSFER GRAIN ELEVATOR GREENVILLE, NEW JERSEY

Built for
THE NORTHERN CONTRACTING CO.

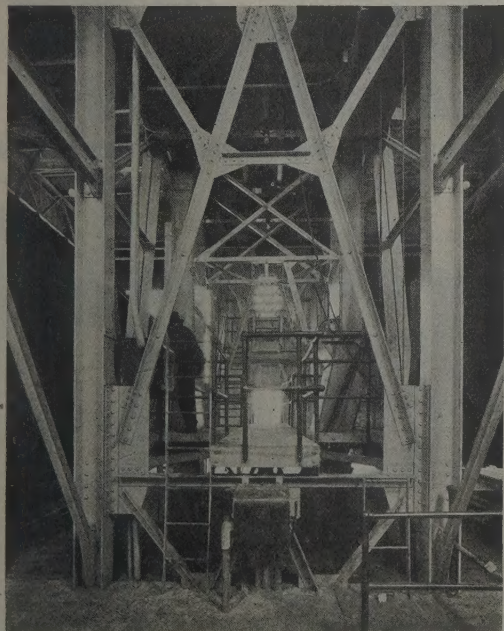
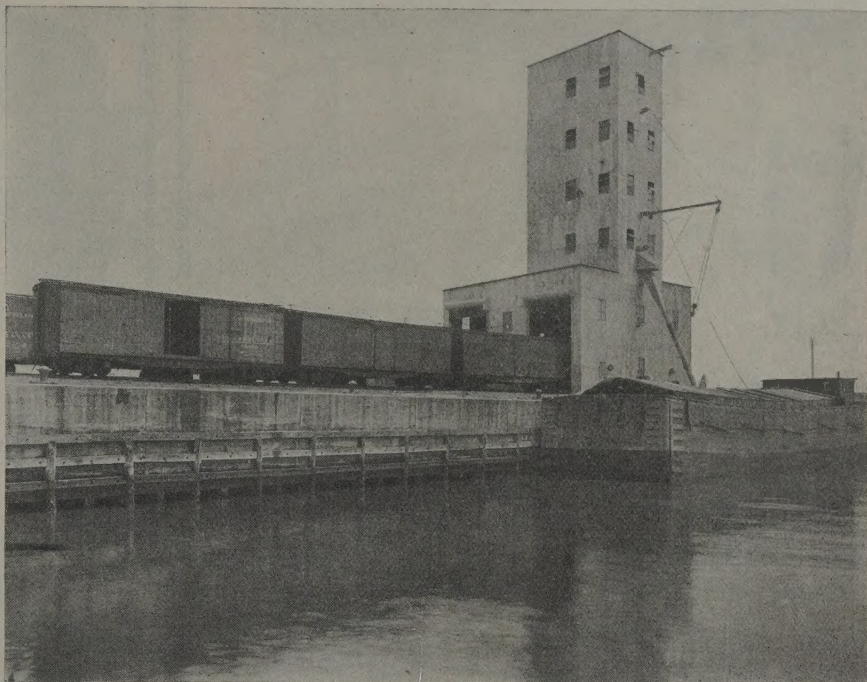
Operated by
WESTERN STEVEDORING COMPANY

Designed to transfer grain received in carload shipments over the Pennsylvania Railroad to barges for subsequent shipment into ocean going vessels.

Grain is received in cars on two parallel tracks running through the house and unloaded with two pairs of Clark-Beatty Power Shovels into track hoppers which discharge into elevator boot.

The track hoppers each have a capacity of one carload. Capacity of elevator is 15,000 bushels of grain per hour.

A Webster double drum car puller is located in the basement and is used to pull loaded cars into the elevators. The entire plant was designed and engineered by The Webster Mfg. Company.



Installations like this are an indication of our ability to meet modern requirements in design, manufacture and operation.

Webster designs and builds all types of grain handling machinery including belt conveyors, trippers, elevators, screw conveyors, dock spouts, distributing spouts, marine legs, power shovels, car pullers, etc.

This organization—with over fifty years of experience in designing and building suitable grain handling and market engineering skill and resourcefulness—is at your service.

We Make

**Equipment for the Large and Small Elevator
Feed Mills, Flour Mills, Cereal Plants, etc.**

Write Us

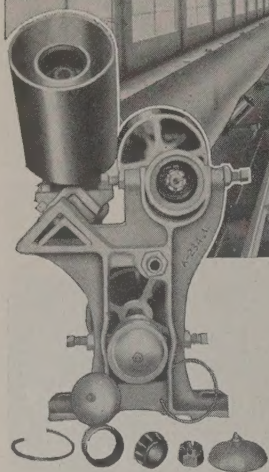
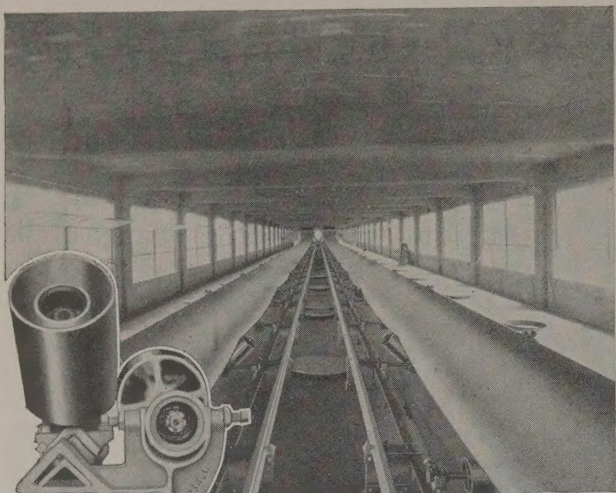
THE WEBSTER MFG. COMPANY

1856 N. Kostner Ave.
CHICAGO

WEBSTER

For Prices on

GRAIN HANDLING EQUIPMENT

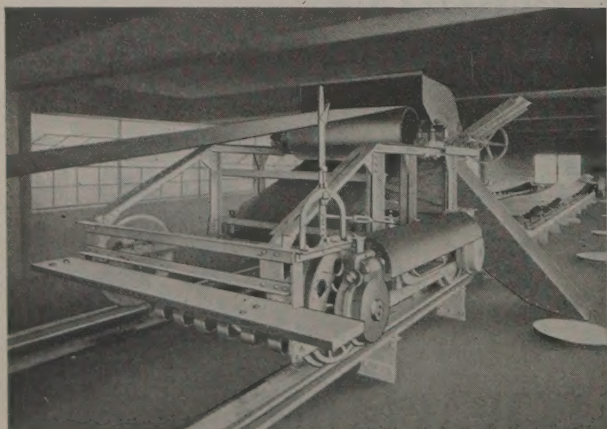


EHR SAM TIMKEN-EQUIPPED CONVEYOR INSTALLATIONS

THE illustration above shows an "Ehrsam" Timken bearing-equipped conveyor—and the lower illustration shows an "Ehrsam" heavy duty self-propelling tripper—both just recently installed in an addition to a large southwestern elevator. Additional "Ehrsam" equipment was installed too. For the name "Ehrsam" stands for quality elevator equipment in the industry.

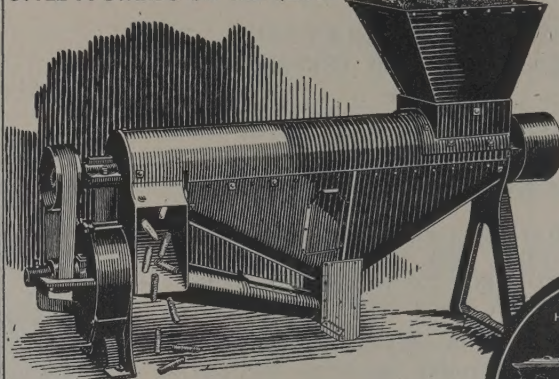
J. B. Ehrsam & Sons Mfg. Co.
ENTERPRISE, KANS.

Manufacturers of Machinery for flour mills, Cement Plaster Mills, Grain Elevators, Salt Plants, Coal Handling and Rock Crushing Systems, Fertilizer Factories, Power Transmission, Elevating and Conveying equipment.



TRIUMPH CORN SHELLER

STYLE A STANDS ON THE FLOOR



STYLE B
HANGS UNDER THE FLOOR



The Triumph will shell any kind of corn that can be shelled by machine. Its capacity is 75 to 100 bushels of shelled grain per hour. Its power requirement is only 5 horsepower. It has only two moving parts and needs no attention except periodic oiling. For more than 40 years it has set the standard for economical shelling.

THE C. O. BARTLETT & SNOW CO.
6242 Harvard Avenue Cleveland, Ohio

Bartlett - Snow

Two styles fill all needs ♦ ♦



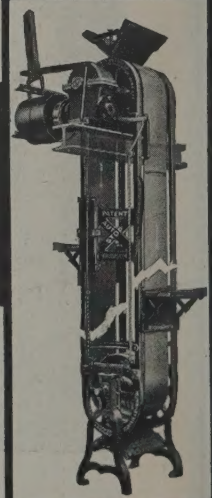
The Genuine Humphrey Employees' Elevator

Saves Labor

Write

**HUMPHREY
Elevator Co.**

800 Division St.
Faribault, Minn.



Weevil Killer!

TETRAFUME

[REGISTERED]

ALSO KILLS RATS AND MICE

WILL NOT BURN—WILL NOT EXPLODE. Approved by Fire Insurance Companies. Harmless—Stainless—Leaves No Odor.

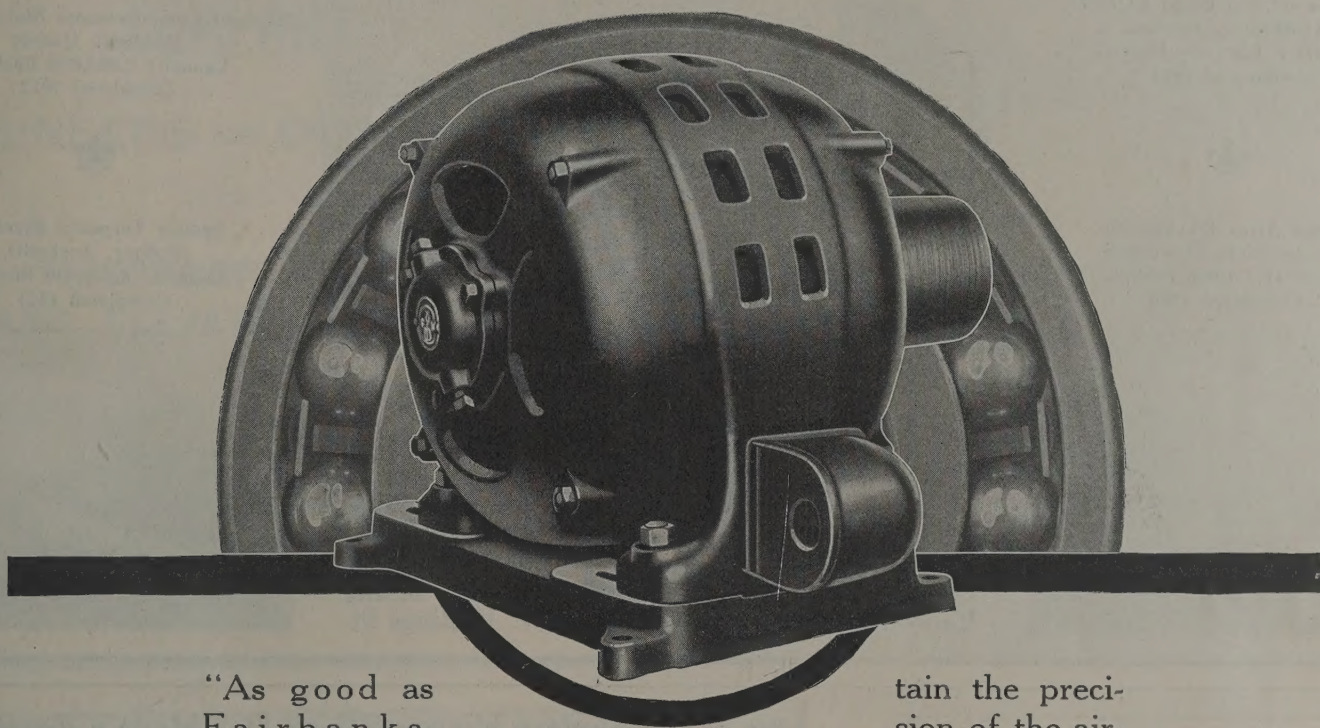
The Grain and Feed Trade have learned to use Tetra-fume. Save Dockage for Live Weevil, and Loss in Stored Grain and Feed Stuffs.

Incorporated 1916

Douglas Chemical & Supply Co.

MANUFACTURERS AND DIRECT DISTRIBUTORS
24th St. and Madison Avenue KANSAS CITY, MO.

How good can motors be?



"As good as Fairbanks-Morse" means a standard of Quality, Precision of Construction and Serviceability approached only by the Best, exceeded by None. A short, thick shaft capable of withstanding the torsion of starting a stiff load. Sealed, dust-proof ball bearings that eliminate wear on shaft and main-

tain the precision of the air-gap. Less friction and more power—lubrication but once a year! Through every detail of electrical design and mechanical construction, Fairbanks-Morse Motors are an example of how well motors can be built—and the quality proves itself daily in every industry.

Before you next
buy motors, in-
vestigate F-M
Motors.

FAIRBANKS, MORSE & CO., Chicago

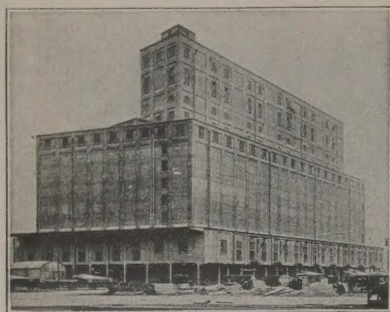
28 branches at your service throughout the United States

FAIRBANKS-MORSE MOTORS

Pioneer Manufacturers of



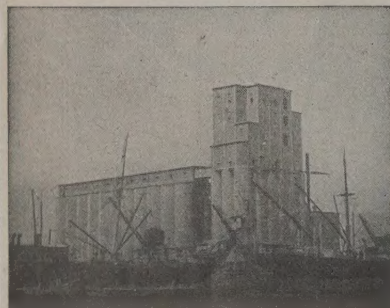
ball bearing motors



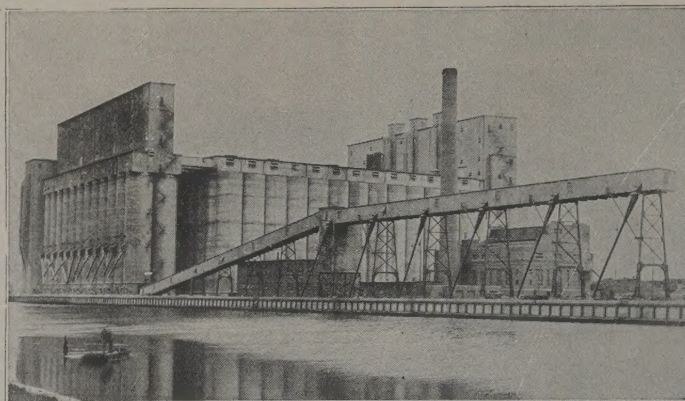
Manchester Ship Canal Elevator
Manchester, England
Capacity 1,500,000 Bushels
Completed 1914



Buenos Aires Elevator Co.
Buenos Aires, Argentina
Capacity 750,000 Bushels
Completed 1920



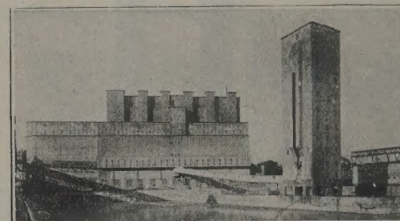
John S. Metcalf Co. Grain Elevator Engineers



Chicago & North Western Railway Elevator
South Chicago, Illinois
Capacity 10,000,000 Bushels
Completed 1920

OFFICES:

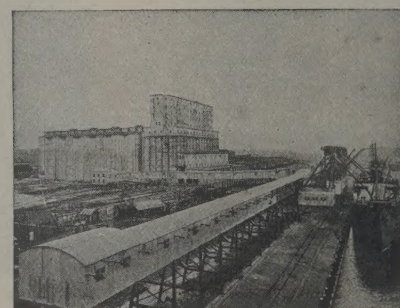
Chicago, Illinois - - - 111 W. Jackson Blvd.
Montreal, Canada - - - 460 St. Helen Street
Sydney, Australia - - - - - Pitt Street
London, England - - 33 Henrietta St., Strand
Vancouver, B. C. - - - 837 W. Hastings St.



Harbour Commissioners Elevator No. 2
Montreal, Quebec
Capacity 2,600,000 Bushels
Completed 1912



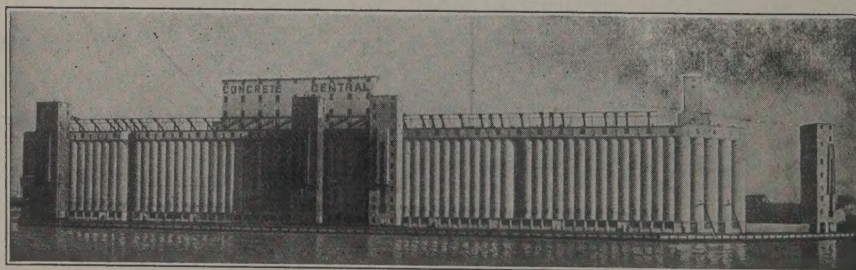
Sydney Terminal Elevator
Sydney, Australia
Capacity 6,400,000 Bushels
Completed 1921



MONARCH

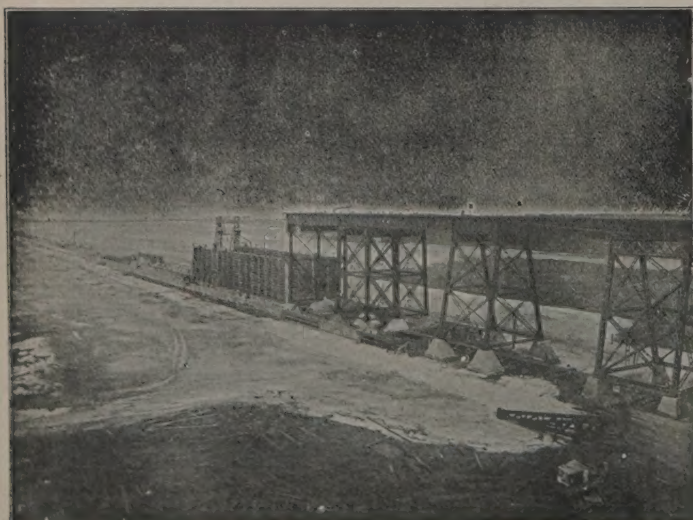
Built Elevators
Assure You
Economical Design
First Class Work
Efficient Operation
and
Satisfaction
Let Us Submit
Designs and Prices

One of the Modern Houses Which Has Made a Record
for Rapid and Economical Handling
CONCRETE CENTRAL, BUFFALO, 4,500,000 Bu.



MONARCH ENGINEERING CO.

BUFFALO, N. Y.



The Barnett & Record Company

GENERAL CONTRACTORS

Designers and Builders of

Grain Elevators, Flour Mills and Heavy Structures

Reinforced Concrete and Steel Ore Dock constructed at Superior, Wisconsin, for the Allouez Bay Dock Company. Entirely Fireproof.

Write for Designs and Estimates

OFFICES:

Minneapolis, Minn.

Duluth, Minn.

Fort William, Ontario

A. E. BAXTER ENGINEERING COMPANY

ENGINEERS AND DESIGNERS

OF

FIREPROOF MILLING
AND ELEVATOR PLANTS

903-933 Ellicott Square

BUFFALO, N. Y.

LEST YOU FORGET

We once more remind you that the time to have THE ZELENY SYSTEM installed is when your bins are empty.

The prediction is made that the 1928 wheat crop will carry an abnormally high moisture content, and if such is the case mill and elevator men will be required to watch more closely than ever before the temperature of their wheat and corn.

Why not let THE ZELENY SYSTEM do the watching? It is a dependable and most efficient watchman and on duty twenty-four hours a day, Sundays, holidays, and all the time.

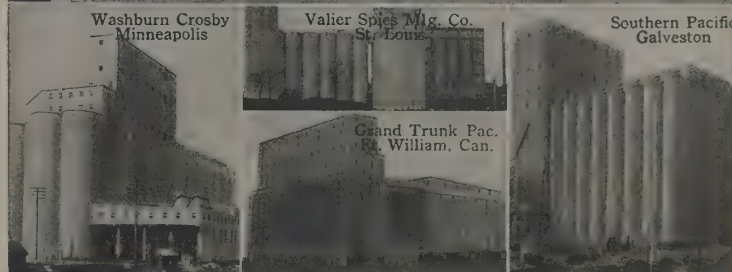
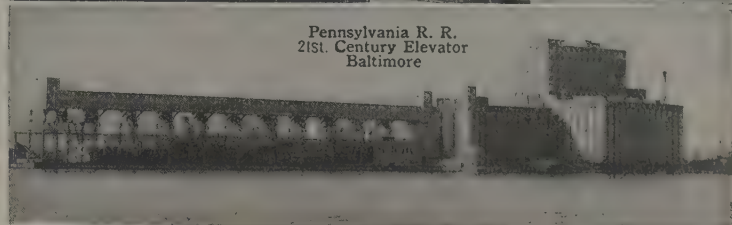
We will be glad to quote you if you require the services of such a watchman.

It will Pay You to Pay Zeleny to Watch Your Grain

ZELENY THERMOMETER COMPANY

542 South Dearborn Street

Chicago, Ill.



JAMES STEWART CORPORATION

ENGINEERS AND CONTRACTORS

FISHER BUILDING — 343 S. DEARBORN ST.

CHICAGO, ILLINOIS

W. R. SINKS
PRESIDENT

THOMAS D. BUDD
VICE-PRESIDENT

L. A. STINSON CO.

Engineers and General Contractors

ELEVATORS, MILLS AND WAREHOUSES
COMPLETE

332 So. La Salle Street Chicago, Ill.

General Overhauling and Improvements

FEGLS CONSTRUCTION CO., Ltd.

ENGINEERS :- CONSTRUCTORS

FORT WILLIAM, ONT.

MINNEAPOLIS, MINN.



*DESIGNED for the years
ahead—an advance we
propose to maintain.*

N. M. PATERSON CO.

2,500,000 Bu. Elevator

FORT WILLIAM, ONT.

MACDONALD ENGINEERING COMPANY

CONSTRUCTING ENGINEERS

Designers and Builders of

**GRAIN ELEVATORS, FLOUR
MILLS, WAREHOUSES, ETC.**

We Have Specialized in

**CONSTRUCTION IN THIS FIELD FOR
MORE THAN 40 YEARS**

Sketches and Estimates Gladly Furnished

**MAIN OFFICE
53 West Jackson Boulevard, Chicago**

NEW YORK

SAN FRANCISCO

TORONTO



CAPACITY 800,000 BUSHELS

THOSE CONCERNED

Or even casually interested in concrete grain storages notice and usually comment on the accurate alignment, smooth walls, and clean cut appearance of

POLK SYSTEM BINS

We Design and Erect

Send us your inquiries.

POLK GENUNG POLK CO.
FORT BRANCH INDIANA

PORTLAND, OREGON

Is an ideal location for that new mill and elevator of yours.

Portland is in the heart of the agricultural region of the Pacific Northwest. It also has an abundance of cheap, hydroelectric power for manufacturing purposes, good ocean and railway shipping facilities and a fair supply of skilled labor, practically all of which is non-union.

Portland is also an ideal place to live. It has a mild climate, good water and plenty of nice hotels, apartment houses and homes. Also good schools, theaters, libraries, clubs and parks.

I would be pleased to serve you in the location, design and construction of that new mill of yours.

HENRY BLACK

Complete Building Construction

383 Pittock Block - - - Portland, Oregon

Telephone Broadway 8060

Iron Workers, Cement Workers, Bricklayers, Carpenters, Roofers, Plumbers, Electricians, Cabinet-makers, Painters and Paperhangers; also Real Estate Bonds and Mortgages.

SELECTION OF RISKS

is essential to the security of
an insurance company.

SELECTION OF AN INSURANCE COMPANY

is just as essential to the
security of an assured.

The "MILL MUTUALS" fulfill the
most rigid requirements.

*Write your insurance company or this
office for details.*

Mutual Fire Prevention Bureau

230 East Ohio Street
Chicago, Illinois

**BALTIMORE & OHIO
TERMINAL GRAIN
ELEVATOR
BALTIMORE, MD.**

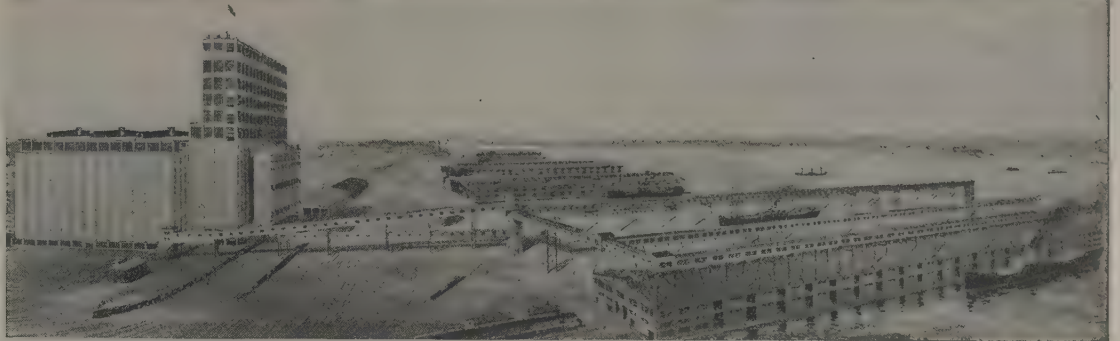
CONSTRUCTED BY

THE M. A. Long CO.

Engineers and Constructors
Grain Elevator Department

806 POSTAL TELEGRAPH
BUILDING
CHICAGO, ILL.

Baltimore Office: Ten West Chase Street



*The Most Efficient Grain Handling
Plant in the World*

Capacity 3,800,000 Bushels

JONES-HETTELSATER CONSTRUCTION CO.

Designers and Builders

**MILL BUILDINGS :: ELEVATORS
FEED PLANTS**

708-9 Mutual Building, Kansas City, Mo.

Burrell Engineering & Construction Co.

Designers of Grain Elevators' Flour
Mills and Associated Buildings

513 West Jackson Boulevard

Chicago, Ill.

Reliance Construction Company

**Furnish Plans, Estimates and Build
COUNTRY GRAIN ELEVATORS**

Our long experience as a builder of elevators insures you an
up-to-date house. Write today.

Board of Trade Building,

INDIANAPOLIS, IND.

"THE CLIMAX" SCOOP TRUCK

CAPACITY { 200 Lbs. Coal
2 1/2 Bushels Grain

Can easily add Twenty-
Five cents an Hour to the
value of a man's time
who uses it in unloading Coal
or Grain from box cars.
Hence, in two weeks' use
the Scoop-Truck will pay for itself and
cost you nothing for its use thereafter.
It will last for years and save the wear-
ing out of a dozen common scoops in doing
a like amount of work.
Hundreds have tried it and will certify to the
truth of these statements.
Why not order now, and let the Scoop-Truck
be giving itself to you?

Patented July 30, 1907

PRICE: \$15.00 F. O. B. cars at factory

Detroit Scoop Truck Co., 993 Osborne Place, Detroit, Mich.



SEE THAT YOUR CONTRACT CALLS FOR

THE CUTLER MEAL DRYER



SOLD BY ALL
MILL
FURNISHERS
Not An
Experiment

All Metal Steam Dryer

IN SUCCESSFUL USE 40 YEARS DRYING

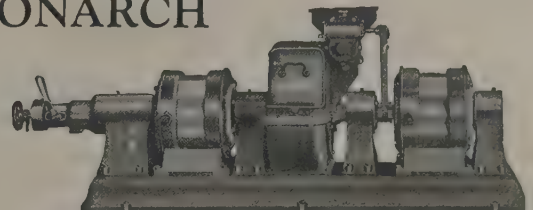
CORN MEAL, HOMINY, BREWERS' GRITS AND MEAL, AND ALL CEREAL
PRODUCTS. ALSO SAND, COAL DUST, GRAPHITE, CLAY, ORES, ETC.

Automatic in operation, requiring no attention

THE CUTLER CO., North Wilbraham, Mass.

CATALOG ON REQUEST

MONARCH



FEED GRINDERS AND MIXERS



HERE are two machines of utmost interest
to the man making or thinking of making
Mixed Feed.

THE MONARCH BALL BEARING ATTRITION MILL

Grinds grain into a fine, uniform meal at the
lowest cost per ton and will outlast and out-
grind any other type machine.

THE MONARCH VERTICAL SWEET AND DRY FEED MIXER

Mixes both sweet or dry feeds, takes very
small space, easy and simple to operate and
does not require a large investment.

For further information
ask for Catalogs B D and
B F. No obligation.

SPROUT WALDRON & CO.

1203 Sherman St.

Muncy, Pa.

Chicago Office 9 So. Clinton St.

Kansas City Office 612 New England Bldg.

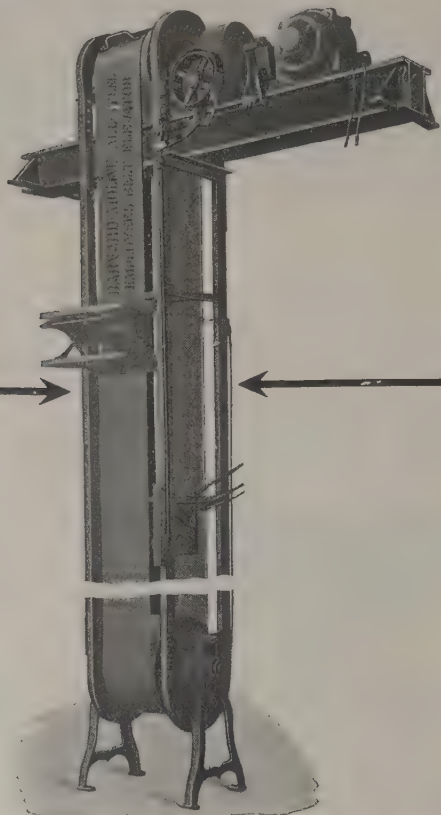
San Francisco Office 726 Harrison St.

THE MONARCH MILL BUILDERS



SAVING
or
CONSERVING

TIME
ENERGY = PROFITS
HEALTH



Barnard-Moline Employees Belt or Service Elevator

By saving or conserving the TIME, ENERGY and HEALTH of your employees, you increase your PROFITS. These elements mean real money to you every day, every week, every month, every year. The installation of a Barnard-Moline Employees Belt or Service Elevator does just those things and furthermore, may secure for you lower insurance rates by guaranteeing prompt and regular attention to machinery and equipment in isolated or inaccessible parts of your plant.

SALIENT FEATURES

All Iron and Steel Construction—Long Life—Minimum upkeep.
Machine Cut Phosphor Bronze Gear and Steel Worm, enclosed in oil tight housing—Adds to life—Prevents oil leakage.
Thrust Ball Bearings on Worm Shaft—Increases efficiency—Reduces upkeep.
Patented Non-reversing Double-tread Steps of New Style Tie-plate Construction—Eliminates belt sway—Decreases friction—Increases strength and rigidity.
Patented Automatic Safety Stop Device—Passengers cannot be carried over top.
Heavy Rubber Belt of high quality—Long life.
Double Belt, Double Arm Cast Iron Rubber Covered Head Pulley—Adds strength.
Double Belt Cast Iron Boot Pulley—Adds strength.
Double Boxed Beam Construction for mounting Head Mechanism with Heavy Cast Iron Brackets at ends on each side—Insures rigidity.
Safety Belt Handles, reverse types for up and down travel—Passenger can only grasp proper Handle.
Belt Driven Type—For belt connection to old line shaft or motor.
Motor Driven Type—Self-Contained with Silent Chain Drive—Easy and economical to install—Can be operated independent of other machinery.

Bulletin and quotation furnished cheerfully upon request

Barnard & Leas Mfg. Co., Moline, Illinois, U. S. A.

Established 1860

Southwestern Representative

S. H. Stoltzfus, 2021-2023 Pennsylvania Ave., Kansas City, Mo.

Randolph Grain Driers

—Made in all sized Capacity from 60 to 1000 Bushel per hour.

—Operated by the Randolph Direct Heat System or High or Low Pressure Steam, using Brass Fin Coils.

—Drier and Cooler equipped with Randolph Hydro Air Dust Collecting System.

—Automatic Temperature Control with or without Recording Thermometer to Record temperature of Grain and Air.



Ralston Purina Company, St. Louis, Mo., Elevator "A."

Equipped with a Randolph Direct Heat Drier of a capacity of 900 Bushels per hour

Ralston Purina are now installing another Randolph Direct Heat Drier in their new plant at Minneapolis, Minn.

Report on Grain Drying by the National Research Council of Canada

"(4) Batch drying, or drying where the Grain is not mixed by frequent movement, has been observed to cause marked local overheating of the grain, thus leading to proportionately greater injury.

"(5) Injury took place where the practice of circulation of air from the cooler to the drier was followed."

—These conditions do not exist in any Randolph Driers.

Write for Catalogue

O. W. RANDOLPH CO.
TOLEDO, OHIO, U. S. A.

Plants located at
Toledo, Ohio, U. S. A. Windsor, Ont., Canada

ANNOUNCING THE
SUPERIOR ANNOUNCING
**HYATT ROLLER BEARING
LINE SHAFT EQUIPMENT**
AND
**WESTERN
SHELLERS AND CLEANERS**
AT
REASONABLE PRICES



**HYATT ROLLER BEARING
PILLOW BLOCK
ALL ROLLER BEARINGS FURNISHED
WITH
HARDENED STEEL INNER SLEEVES**

Write for Circular with Complete Data

UNION IRON WORKS
DECATUR, ILLINOIS

**HESS
PNEUMATIC
GRAIN
DRIERS**

Used everywhere.

NONE BETTER

For twenty-five years this drier has led all others in efficiency, economy and convenience. Made in various sizes, suitable for all grain drying needs. Tell us your wants.

Hess Warming & Ventilating Co.

1210 So. Western Ave., Chicago

Hess Drier Company of Canada, Ltd.

*Theodore Kipp, Managing Director,
68 Higgins Avenue, Winnipeg, Manitoba*

**“IF..
it can be operated
at a lower cost”**

*“Any inefficient equipment will be scrapped and replaced by equipment more efficient and more up-to-date and of greater production capacity if it has been conclusively proved that the new equipment can be operated at a lower cost and give us better production.”**

—The Comptroller,
Willard Storage Battery Co.

MANY mills are outstanding competition by increasing the efficiency of their production equipment.

This is particularly true of the special machinery used in feed production. For example, the *new* Wolf Rotary Cutter, Cleaner and Grader holds great potential profit for those millers who are still “getting along” with yesterday’s methods.

The *new* Wolf Rotary Cutter, Cleaner and Grader is the only one of its kind on the market. There is nothing else just like it. It is without doubt the last word in modern, money-making, time-saving machinery.

It produces the maximum amount of clean cut grain with the minimum amount of meal!

It delivers the finished product in one operation with less power!

It is surprisingly inexpensive to install; and astoundingly profitable to operate!

It will pay you to learn the latest news about the *new* Wolf Rotary Cutter, Cleaner and Grader.

Why not mail the attached coupon—NOW—while it is still on your mind?

THE WOLF COMPANY

68 Commerce Street, Chambersburg, Pa.

**From “Manufacturing Industries”*

THE WOLF COMPANY,
68 Commerce Street, Chambersburg, Pa.

All right! “If it can be operated at a lower cost,” I want to know more about it.

Tell me about the *new* Wolf Rotary Cutter, Cleaner and Grader.

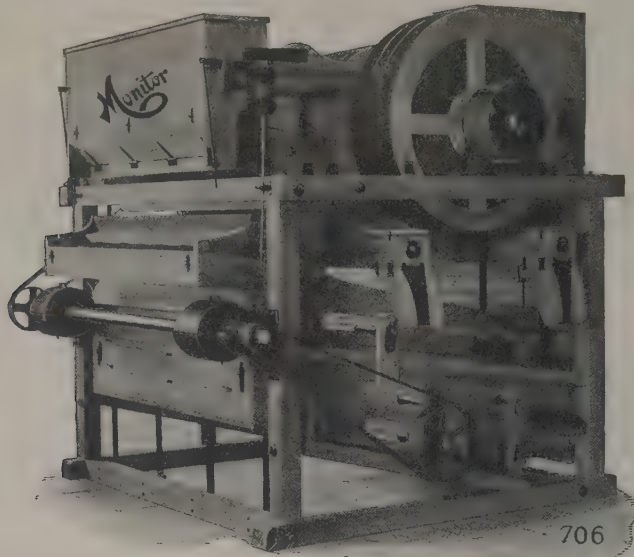
Firm

Name

Address

City State

Monitor LOCATION • new
FACTORY • modern
EQUIPMENT • complete } Prompt
Deliveries a
Speciality



Are You All Set

to clean the grain that will come to you from the new crop?

Unless you have the MONITOR in your elevator, you are not. The work done by the MONITOR machines is so superior to the work of other machines, that you are badly handicapped without the MONITOR machines.

Here are a few of the 1928 Canadian buyers:

MIDLAND PACIFIC ELEVATOR, NO. VANCOUVER, B. C.

6 No. 11B MONITOR Receiving Separators.
1 No. 9A MONITOR Screenings Separator.

SEARLE ELEVATOR, FORT WILLIAM, ONT.

3 No. 10B MONITOR Receiving Separators.
4 No. 11B MONITOR Receiving Separators.
2 No. 9A MONITOR Screenings Separators.

NEW WESTMINSTER HARBOUR COMMISSION ELEVATOR, NEW WESTMINSTER, B. C.

4 No. 11B MONITOR Receiving Separators.
1 No. 6A MONITOR Screenings Separator.

ALBERTA POOL ELEVATOR, VANCOUVER, B. C.

16 No. 11B MONITOR Receiving Separators.
1 No. 11A MONITOR Screenings Separator.

PANAMA-PACIFIC ELEVATOR, VICTORIA, B. C.

6 No. 11B MONITOR Receiving Separators.
1 No. 9A MONITOR Screenings Separator.

Why do all the big Canadian Grain Elevators, without exception, adopt the MONITOR? You know the answer. It's the work the machines do.

HUNTLEY MFG. CO.

Department E

BROCTON, N. Y.

(FORMERLY AT SILVER CREEK, N. Y.)

OUR REPRESENTATIVES, AT YOUR SERVICE

CHICAGO

A. D. McPherson, 410 Utilities Bldg.

MINNEAPOLIS

A. F. Shuler, 222 Millers & Traders Bk. Bldg.

KANSAS CITY

F. J. Murphy, 732 Board of Trade

ROCHESTER, N. Y.

B. L. Brooks, Powers Hotel

CANADIAN PLANT

Tillsonburg, Ontario

VANCOUVER, B. C.

Will Hill, 414 Seymour St.

J. J. Ross Mill Furnishing Co.
Portland, Ore. - Seattle, Wash.

LOS ANGELES, CALIF.
McKain Mfg. Co.

DAYTON, OHIO

W. B. Sutton, 337 W. Hudson Ave.

PHILADELPHIA, PA.

C. Wilkinson, P. O. Box 147,
Lansdown, Pa.

HIGH POINT, N. C.

C. T. Burton, 603 Woodberry St.

SAN FRANCISCO

John R. Gray, Inc., 726 Harrison St.

A monthly journal devoted to the elevator and grain interests.

Official paper of the Grain Dealers' National Association and of the Illinois Grain Dealers' Association.

Established in 1882.



Published on the fifteenth of each month by Mitchell Bros. Publishing Co., 431 So. Dearborn St., Chicago, Ill.

Subscription price, \$1.00 per year.

English and Foreign subscription, \$1.75 per year.

Established in 1882.

VOL. XLVII

CHICAGO, ILLINOIS, JULY 15, 1928

NO. 1

More Storage at Canadian Head of the Lakes

Additional Reinforced Concrete Storage Tanks Erected by the Parrish-Heimbecker Elevator at Port Arthur, Ont., Brings Concern's Capacity at That Point Up to 900,000 Bushels

WHEN Parrish & Heimbecker, Ltd., grain receivers, shippers and importers of Winnipeg and other Canadian points, undertook to have their house at Port Arthur, Ont., constructed a few years ago, several engineering problems were presented which called for special methods. For one thing, it is recorded that the concrete dock was laid out on top of the ice and a hoist engine on skids was drawn out on the ice to furnish steam for taking out the ice cores. A hole had to be cut for each of the 70-foot piles, both for the dock foundations and for the elevator proper. At that time greater storage was contemplated at some future date and only six tanks were completed, along with the headhouse.

Recently the plans of the company have been realized and a large additional battery of tanks has been completed. The illustration below shows the plant as it looks today, with the new tanks ready for use at the time the photograph was taken. The new units were built by Barnett & McQueen, and have greatly enhanced the storage facilities. Both the new and the old parts are of reinforced concrete construction throughout. The elevator is on the waterfront with a slip which can accommodate the largest lake ships. The original construction which had only about one-third the capacity now available was hurried to completion with the intention of offering immediate receiving and shipping capacity, which was then badly needed at the Head of the Lakes. Receiving and shipping facilities were at that time much more needed in that vicinity than storage. The Canadian branch of the James Stewart Corporation handled the job.

The first time that the plant went into operation it consisted of a headhouse, train shed, drier house, transformer house and six storage tanks with the usual interstice bins.

The headhouse is 42 feet 9 inches by 46 feet 3 inches on the ground plan and 203 feet high to the top of the stair well. Originally two tracks served the house, but additional trackage has been added since the original unit commenced operation. The elevators discharge to hopper scales and these, in turn, to 36-inch belt conveyors which lead over the storage tanks to the drier or to any of the

bins in the workhouse. Though the great bulk of shipments are made by boat, there are loading spouts for cars too.

One of the features of the scale floor is the installation of the machinery above the floor with every working part thus made easily accessible. Steel hoppers of the scales empty into a spout which leads through the concrete floor to the distributing spout below. To get from the scale floor to the distributing floor it is necessary to go through fireproof doors to the stair well and through a similar door on the floor below. This stair well extends from the first floor to the cupola. A passenger elevator operates in the elevator, so that speed and safety are facilitated. A complete dust collecting system further reduces the hazard, and the house has all modern devices for fire protection.

is developed in the elevator. The prime mover is of 85 horsepower. In all, there are 25 motors, which are hooked up with rope and chain drives. Three-thousand feet of rope drives are in use, and over 300 feet of chain drives—mostly supplied by the Link Belt Company.

Of belt conveyors there are five, three in the basement and two in the cupola. They are of 36-inch width and have an aggregate length of 2,400 feet. For unloading there are four automatic shovels.

Three hopper scales have been provided, as well as an automatic sacker and a sewing machine for sacking oats. The principal grains handled are wheat, oats and barley.

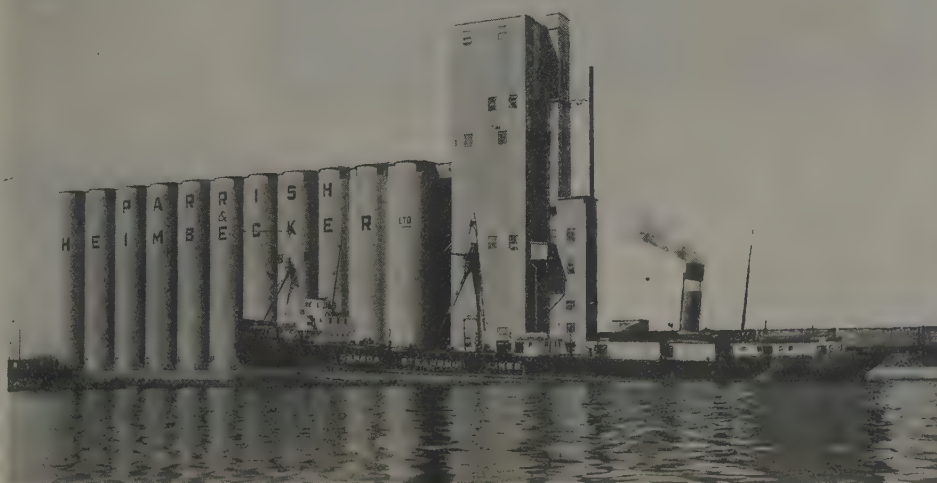
The concrete storage tanks have an inside diameter of 20 feet and are 107 feet 6 inches in height. The interstice bins are quartered, providing plenty opportunity for separating grades, an important consideration in the operation of the house. The concrete gallery which houses the storage conveyor belts is above the tanks. Thirty-six inch belts are used, all operating at uniform speeds, thus eliminating congestion or waste of power.

Ever since the first unit was placed in operation the house has given satisfaction to its owners; and increases in business along with natural development of the country have warranted carrying out the plans for increase. The direct connection with both the Canadian National Railroad and the Canadian Pacific line, as well as adequate water transportation facilities out through Thunder Bay, Lake Superior, afford the best of means for moving grain

speedily and economically to and from the elevator.

Parrish & Heimbecker, Ltd., maintain offices in various parts of the Dominion, including Winnipeg, Toronto, Calgary, Lethbridge, Edmonton and at the Port Arthur elevator. The officers of the company include W. L. Parrish, president; N. Heimbecker, vice-president and general manager; and W. J. Dowler, secretary and treasurer. F. J. McLean is superintendent of the house.

The many titan plants at the Head of the Lakes give to the twin ports the distinction of having the world's largest concentration of grain storage facilities. More than half the wheat crop of Kansas, now being shipped, could be poured into the lake-head tanks.



THE PARRISH-HEIMBECKER ELEVATOR, PORT ARTHUR, ONT.

The house as now constituted has a capacity of 900,000 bushels, and this is divided into 22 tanks and 85 bins. The workhouse can handle 300,000 bushels at a time and the annex is capable of holding 600,000 bushels. The receiving capacity of the plant is five cars per hour, and the shipping capacity is rated at 30,000 bushels per hour.

Ten grain cleaners of various types have been provided and they afford a cleaning capacity of 6,500 bushels per hour. The cleaners include scalpels and disc machines, and they were supplied by the Huntley Manufacturing Company, Brocton, N. Y., chiefly. A Morris Drier gives a drying capacity of 1,000 bushels per hour.

Electricity is used for power, and 694 horsepower

TRANSIT PRIVILEGES HELP OHIO ELEVATOR

That there is no stagnation in the grain business in Ohio needs no proof, nor does it require discussion. Only during the last month the Ohio Grain Dealers Association held its forty-ninth annual meeting, at which it was shown that the membership of that organization had increased over 200 per cent in one year, a remarkable record for even so progressive an organization as this and so productive a state as Ohio. Many established firms have kept up a consistent record of progress and successful grain merchandising out there. One of these firms is The Garman Grain Company, Delphos, Ohio.

This firm was established in 1909, and incorporated in 1921. In 1927 the capitalization was increased to \$100,000. The elevator and warehouse which the company operates has length over all of 175 feet and is 45 feet wide. The elevator measures 101½ feet in height. The illustration below gives a view which shows the general layout and compact appearance of the plant.

The elevator has direct contact with both the Pennsylvania Railroad and the Nickel Plate. This location, it should be observed, gives decided advantages in transit privileges. Located just east of the best corn sections in the State of Ohio, the Garman Grain Company has transit privileges from

of these side-lines. The company also does a jobbing business in flour.

The officers of the corporation include William Dauch, H. M. Viel and A. L. Garman, who is manager. The elevator superintendent is Jesse Fisher.

BRAZIL PROMOTES WHEAT

What would seem to be completely subsidizing of the farmer is to be done this season in the State of Parana in Brazil where what are known as "Coomboios de Trio" have been instituted. Through these, wheat will be distributed for planting in the various sections of the state. The government will not only distribute the seed, but send an agricultural expedition, composed of trucks, tractors and appropriate implements to establish in 12 municipalities of the state experimental wheat fields of one hectare each. All of the work will be done by the state from breaking the land and planting to harvesting and the crop, with the exception of some seed, will belong to the proprietor of the land.

Wheat has not been grown in great quantities in Parana and the government is making an attempt to introduce it by these methods.

BOOKLET ON EXPORT GRAIN

The Board of Commissioners of the Port of New Orleans has just published a 32-page booklet describing the rate adjustment on grain and grain

which year the inventor applied for his patent. Reviewing exhibits on this point, Judge Soper said:

The history of the art shows that the idea of indirect suction did not originate with Moore. Before his earliest date, it had been considered by others who showed, moreover, that the velocity of the air is a vital element in the process.

An article by Professor Dedrick, of Penn. State College, Pa., entitled "Dustless Grain Elevators" and containing a description of what the author called an inexpensive method for rendering an elevator dustless, appeared in the issue of April 15, 1920, of the publication known as the AMERICAN ELEVATOR AND GRAIN TRADE.

The plaintiff's attorney introduced a copy of another grain magazine in an attempt to show that Moore's device had "received recognition." The weight of this evidence was not considered great by the court.

When asked if the case would be appealed, no information could be had from the Chicago office of A. M. Belfield, retained by Mr. Moore as counsel.

NEW WESTERN FIRE INSURANCE MANAGER

The flour mill and grain mutuals who own and operate the Pacific Millers Insurance Department of Seattle, Wash., which department specializes in fire insurance for flour and feed mill, grain elevator and warehousemen, have announced the appointment of A. J. Kellenberger as manager to succeed C. H. Cole who resigned during the early part of the year. N. J. Sankela was appointed field superintendent. The territory controlled by this department consists of the whole group of Pacific Coast states.

WORLD WHEAT CROP PROSPECT UP 10 PER CENT

Estimates or forecasts of wheat production in 1928 from 11 countries total 1,421,000,000 bushels against 1,570,000,000 in 1927 when these countries represented approximately 45 per cent of the estimated world wheat production excluding Russia and China. Forecasts of production were made on the basis of crop conditions as of May 1 in France, and June 1 in Germany and Poland. Since those dates conditions have improved, particularly in Poland, according to July reports, and if the improvement continues the final yields will show an increase over these forecasts. The 1927 wheat production as reported by 48 countries was 3,501,108,000 bushels against 3,356,701,000 bushels in those countries in 1926.

WHEAT EXPORT PRICE RISES TO \$1.50 PER BUSHEL

May exports of grain and grain products, as reported the last week in June by the Department of Commerce, had a total value of \$22,998,000, against \$17,470,000 in the preceding month, and \$34,412,000 in May of last year.

The month's exports from United States ports included 4,823,000 bushels of wheat, valued at \$7,193,000, against shipments in April amounting to 2,723,000 bushels valued at \$3,835,000. The average bushel price of export wheat in April was \$1.41; in May, \$1.50.

CORN ONLY GRAIN WITH EXPORT DECREASE

During May, the last month for which the Department of Commerce has furnished export figures, 1,104,000 bushels of corn were shipped out, compared to the 3,263,000 bushels exported in April.

Thirteen times as much rye was exported in May as in April, the May shipments aggregating 3,324,000 bushels, valued at \$1.45 per bushel, as compared to the \$1.33 valuation in the preceding month.

Barley exports amounted to 1,092,000 bushels in May, as against 654,000 bushels in April. Rice exports increased to 30,949,000 pounds for the month.



GARMAN GRAIN COMPANY'S ELEVATOR, DELPHOS, OHIO

Indiana and Illinois on both the Nickel Plate and the Pennsylvania lines as well as their connections. They can, therefore, handle anything through St. Louis and Peoria and the Chicago gateways.

The elevator is constructed of brick, concrete and wood, and has a storage capacity of 60,000 bushels, divided into 11 bins. The receiving capacity is 5,000 bushels per hour and the shipping capacity is the same. A Monitor Grain Cleaner, supplied by the Huntley Manufacturing Company, Brocton, N. Y., gives a cleaning capacity of 2,000 bushels per hour.

A drying capacity of 500 bushels per hour (5 per cent reduction) is provided by a drier installed by the O. W. Randolph Company, Toledo. The corn sheller is capable of handling from 1,200 to 1,400 bushels in an hour; and for feed grinding there is a 20-inch attrition mill; four scales are in use, three of which are Fairbanks Scales.

The means of motive power is electricity, and 60 cycle, three phase, 220 volt motors are used. There are 11 of these motors and they are capable of developing 101½ horsepower. In addition to the equipment already mentioned, the house has a seed cleaner, a corn cracker and an oats huller.

The principal grains in which the Garman Grain Company deals are wheat, corn, oats, barley, rye and seed. In addition to these grains, the company has an extensive business in suitable side-lines, among which will be found coal, feed, fertilizer and other smaller volume commodities. Probably coal may be listed as the most important

products from Kansas, Oklahoma and Texas to the port of New Orleans, with a complete index of points of origin. Railroad maps of Kansas, Oklahoma and North Texas illustrate the differentials and photographs show the grain handling facilities at New Orleans. Copies may be had on request.

DUST COLLECTOR PATENTEE LOSES CASE TO RAILROAD

Accepting the files of the AMERICAN ELEVATOR AND GRAIN TRADE, and other evidence as proof of contentions stated by attorneys for the Baltimore & Ohio Railroad, United States District Court Judge Soper, in a 12,000-word report handed down from the Federal bench in Baltimore, Md., has dismissed the bill of complaint filed by Raymond H. Moore, against the "B. & O."

Mr. Moore charged infringement of United States Letter Patent No. 1,502,050, issued to him four years ago the twenty-fourth of this month. The patent, now pronounced invalid, related to a ventilating device for the receivers of belt conveyors, and pertained to the general system developed for dust control in terminal elevators. The Locust Point elevator in Baltimore, owned by the defendant railroad, was the plant in which the alleged infringement had developed.

The defense pivoted on the ability of the railroad attorneys to prove that hood and suction devices, similar to Moore's, were in use prior to 1921, in

How Market News Is Disseminated

Methods Used by the Department of Agriculture in Compiling and Distributing Information About Grain Markets

By C. M. VIEHMANN

Assistant in Market Information, United States Department of Agriculture

HANDLERS of grain, as well as butchers, bakers and candlestick makers, have come to realize the desirability, in fact necessity, of keeping currently informed about crops, markets and prices, if they are to conduct a profitable business under present-day conditions. Progressive dealers now recognize that the grain market, in contrast with that for some other commodities, is dominated not only by a wide range of domestic market factors but by conditions affecting world supply, demand and prices. The magnitude of the industry, therefore, makes it most difficult for any individual, whether he be producer, trader or manufacturer, to keep fully informed concerning developments in all stages of production and distribution without the aid of a disinterested public-service organization.

Although the price field for most grains is adequately covered, and domestic statistics on market supplies, movement and distribution are, and have been for some time, efficiently compiled by trade interests, such information is not generally available except in fragmentary form. This is true no doubt because most of the market reports broadcast and carried in local papers deal chiefly with developments in the speculative market or give only local market prices.

To meet a growing demand for unbiased reports about crop and market developments, the Bureau of Agricultural Economics of the United States Department of Agriculture in 1923 inaugurated a grain market news service to provide comprehensive and impartial information about crop conditions, production, market movement, stocks, current demand, price trends and other factors which affect the market.

The service has been developed into a nationwide organization by G. A. Collier, marketing specialist of the Bureau of Agricultural Economics. To readers of the AMERICAN ELEVATOR AND GRAIN TRADE, he is perhaps best known as the author of "The Grain Market Situation," a regular feature of this journal. Mr. Collier's experience in the grain business and his broad knowledge of the in-

dustry provide a storehouse of practical information from which he draws in developing the Government's system of gathering, interpreting and disseminating grain news.

at stated intervals information relative to developments in their respective markets or adjacent territory.

The grain market news service, which is a part of the national news service covering nearly all farm products, has been organized to perform three important functions: 1. The assembling of crop and market information, both domestic and foreign; 2. Analysis of the information and interpretation of its effect upon the market situation; and 3, wide dissemination of the information.

The material assembled covers a very broad field



G. A. COLLIER, IN CHARGE OF THE FEDERAL GRAIN MARKET NEWS SERVICE

and comes from a great number of sources. It includes both foreign and domestic reports of crop conditions, acreage and production estimates; stocks of grain in various positions; grain movement in commercial channels and into consumption; the probable supply, demand, and price trends, as well as special reports from various sources which have a bearing upon the situation.

Domestic crop data are, of course, obtained from the United States Crop Reporting Board which is also a unit of the Bureau of Agricultural Economics. Weather reports furnished by the United States Weather Bureau are taken into consideration in connection with crop developments. Trade statistics, such as receipts and shipments, are readily obtained from commercial collecting agencies. Figures covering exports and imports and such information as is available relative to utilization are obtained from the Department of Commerce and trade agencies. Some data on utilization and distribution are obtained from original sources. Quality statistics are supplied by bureau representatives at the markets or by trade correspondents. Market information, including current quotations, is telegraphed in by Government officials and the trained market correspondents in the important grain centers. This information covers the development of various factors and their influence on supply, demand and prices.

Foreign crop data are furnished by the International Institute of Agriculture as well as by the governments of important grain producing countries. Foreign market information of a character similar to that now procured from domestic markets is obtained through the Foreign Service of the Bureau from its own and other government representatives in several countries and from trade agencies. Although admittedly inadequate, such information is helpful in the interpretation and evaluation of current statistical data. The need for a constant flow of reliable information on the development of competition in foreign markets is

recognized and improvements are being made in both the scope and dependability of the foreign market information.

PREPARATION AND CHARACTER OF REVIEW

Reports thus received are analyzed and in the light of all the information available, the Weekly Grain Market Review and other reports are prepared. The analysis and interpretation of incoming material must be done quickly so that a digest of it may be released while it has the greatest possible value. To facilitate this work various statistical devices such as charts, graphs, and tabular statements of receipts, prices, supply and distribution, grain stocks, exports, imports, etc., are kept up to date and ready for use at any time in connection with the latest available information.

The Weekly Grain Market Review is the principal medium for carrying current market information. It is a comprehensive but concise analysis of the outstanding developments during the week. Price changes are given but the factors that dominate the market and are primarily responsible for the changes form the principal part of the discussion.

Most of the important information incorporated in the review is received by cable and telegraph. A network of leased wires connects the field offices direct with Washington headquarters and makes possible the quick dispatch of official business.

The review, consisting of approximately 1,000 words, is prepared each Saturday at Washington and wired to the field offices of the Bureau at Chicago, Minneapolis, Kansas City, Fort Worth, San Antonio, Salt Lake City and San Francisco. At each of the field offices it is mimeographed immediately and redistributed to the trade and farm press, radio stations, state officials and other interested persons who desire the information, so that it is available on Monday practically everywhere in the United States.

NUMBER AND TYPE OF REVIEWS

Nearly 400 regular or special market reviews were prepared and released during 1927. Regular reviews include:

The Weekly Grain Market Review, featuring wheat but reviewing the market situation also for corn, rye, oats, barley and flax, distributed from Washington, Minneapolis, Chicago, Kansas City, San Antonio, Salt Lake City and San Francisco.

The Weekly Corn Market Review, featuring corn and distributed only from Chicago.



PART OF CLERICAL FORCE ENGAGED IN COMPILATION OF GRAIN MARKET NEWS REPORTS

The Weekly Barley Market Review, featuring the domestic and European barley market situation and distributed only from San Francisco.

Semi-monthly review of the grain market situation for farm publications. This review deals principally with the grains grown in the territory covered by the various publications.

Monthly Review of the Grain Market Situation for farm and trade publications. This also features the grains in which the readers of the publications are most likely to be interested.

Quarterly Review of the Wheat Market Situation for general press distribution. This is used extensively by farm and trade publications.

Quarterly Review of the Flax Market Situation.



STATISTICIANS OF GRAIN MARKET NEWS SERVICE AT WORK IN HEADQUARTERS, WASHINGTON, D. C.

dustry provide a storehouse of practical information from which he draws in developing the Government's system of gathering, interpreting and disseminating grain news.

In addition to the force at Washington headquarters, Mr. Collier is ably assisted by market specialists at branch offices as follows: W. R. Kuehn, Minneapolis; F. C. Bisson, Chicago; and B. H. Henley, Kansas City. Representatives of the bureau at Atlanta, San Antonio, Salt Lake City and San Francisco also help in the collection of market information and the dissemination of the reports. Commercial correspondents, who are trained reporters located at other important United States markets and at several foreign markets, also send

This is prepared when certain statistics relative to flax crushings are released by the Bureau of the Census.

Special Market Reviews upon the various grains are prepared at critical periods in the crop movement or market development and feature such factors as have become important in the market situation. All of the above reviews are prepared in the Washington office.

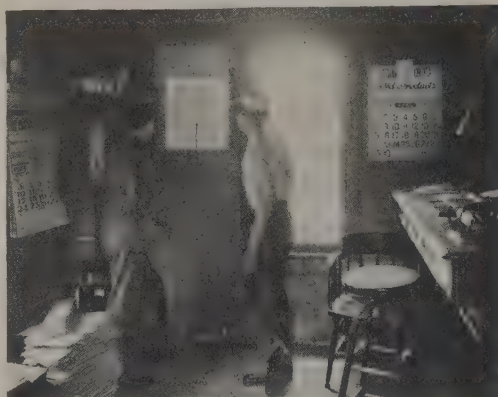
A daily report showing basic wheat prices and premiums paid for various percentages of protein as indicated by daily sales is being prepared by the Minneapolis office as a result of the co-operation of the Minneapolis Chamber of Commerce. This service has been used extensively in Montana and plans are being considered for its distribution into the other spring wheat states.

Insistent requests for more detailed reports covering the cash market situation at Chicago by the radio broadcasting stations in that market specializing in market news have been met by the preparation of a special daily review of the cash grain market by the Chicago office.

METHODS OF DISSEMINATION

To be most effective, the service must be given wide distribution. Since the cost makes a service to individuals prohibitive, a distribution scheme has been worked out by which trade papers, newspapers, the radio, and other means of giving further dissemination to the review are utilized. Trade papers carry the information regularly to the

country elevator operators and shippers. Radio stations in practically all of the important producing areas broadcast the reviews regularly. Between 200 and 300 newspapers published principally in the grain producing states carry all or part of this weekly resume. Dailies publish it in most



ELEVATOR OPERATOR AND CUSTOMER EXAMINING BULLETIN

instances in the Monday morning or Monday evening edition. Periodicals use it in the first issue after receipt. This circulation now reaches over 5,000,000 readers.

About 4,000 banks in the central western states

are co-operating in making the report available to their patrons by posting it on their bulletin boards for regular consultation. Boards of trade, co-operative elevator companies, state officials, county agents, and others are among those willing to help the other fellow to help himself.

That handlers of grain value the service is indicated by the increasing interest in it. One dealer aptly expressed the growing sentiment of the trade in favor of the service by saying, "We do not mean that we are going to use the reports as a basis for our buying and selling, but we welcome the opportunity of getting reports with a high degree of accuracy on the condition of prospects." The president of a large milling concern expressed his appreciation in these words: "I have been reading the reports carefully for some time past and have been impressed by their accuracy as well as by their comprehensive statement of facts which those engaged actively and largely in the handling of or milling of grains can confirm. I regard them as presenting the most accurate picture of the immediate situation and market conditions of any I know of, and it is a pleasure to commend this activity of your department. I trust this service will be continued indefinitely." The crystallization of this feeling among members of the trade bears mute testimony of the fact that the Federal grain market news service provides an unbiased, dependable and comprehensive picture of what is what in the grain market situation.

ENID GETS FIRST CAR OF NEW WHEAT

The first carload of new 1928 wheat in the United States reached the Enid market last month. It was shipped by the Oklahoma Wheat Growers Association from Grandfield and was consigned to the Enid Terminal Elevator Company. The wheat

contains green weed seeds. (A thermometer system is a help to the dealer in fighting the damp grain hazard or weed seed menace in the elevator.)

Immature, damp, or weedy wheat, it is emphasized, cannot be stored with safety. Weed seeds in even fairly dry threshed wheat may cause spoilage in storage. In the Spring wheat area any wheat which contains more than 14 per cent moisture must be watched carefully while it is in storage.

COST OF RAISING WHEAT IN ALBERTA

The lack of uniform cost systems has complicated the attempt to determine the cost of the production of wheat in Alberta. Near Edmonton wheat production cost was 55 cents a bushel, based on production on 300 acres in 1927. No figures were given to indicate the separate items involved.

Notwithstanding this figure, it has been estimated that the average cost in the province is 76 cents a bushel. This is divided as follows: Land and machinery, \$6; plowing, \$2.25; packing, 50 cents; harrowing (three times), 80 cents; seed, \$1.95; drilling, 35 cents; cutting, 95 cents; binder twine, 50 cents; stocking, 55 cents; threshing, \$3.25; delivery (local market), 69 cents. These are based on estimated yield of 23 bushels to the acre or an average total cost per acre of \$17.59.

A FARMER OWNED MICHIGAN ELEVATOR

By C. HYDE

So great is the diversity of agriculture as well as industry in the Middle West that a great variety of products will frequently be found to be handled by grain elevators. In fact, it is becoming obsolete to allude to them as "grain" elevators, since their business is no longer confined to the distribution of farm products. In certain sections of the Middle West this diversity is greater than others, and one such section is southern Michigan. Here a great many different kinds of crops are grown, a number of different supplies are needed by the agrarian group, and it is expedient for the progressive elevator company to capitalize on the opportunity thus afforded. One such company is considered here, and the illustration below gives a fair idea of the general appearance of this house.

The Farmers Elevator Company, of Marshall, Mich., has 160 members. It was organized in 1917,

and has had about a decade of successful experience in the grain business. Marshall is the county seat of Calhoun County and is a town of about 8,000 inhabitants, which affords an excellent setting for such an elevator. The Michigan Central Railroad affords the necessary transportation facilities, and the natural features and resources of southern Michigan are very well adapted to the needs of the concern.

The elevator is built of concrete and is 26 feet long, 26 feet wide and 80 feet high. It has a storage capacity of 17,000 bushels, divided into eight bins of equal sizes. The house has a receiving capacity of 500 bushels per hour and a shipping capacity of 7,000 bushels per day. There is one cleaner—a Monarch, made by Sprout, Waldron & Co., Muncy, Pa., and this can handle 500 bushels per hour. The corn sheller gives a capacity in this line of 1,000 bushels per day; and a feed grinder is in use which is capable of grinding three tons of feed per hour for the large custom feed trade built up.

Both lighting and power are electrical, and seven



PLANT OF THE FARMERS ELEVATOR COMPANY, MARSHALL, MICH.

motors are in use. Their combined horsepower is 76, and they are equipped to use belt drives. The elevator uses five scales, three of which are Fairbanks Scales.

Wheat, rye, oats, corn and beans are among the chief products handled by the Farmers Elevator Company; but other materials which are merchandised include fence, fertilizers, oil and lime. The superintendent in charge of the plant is Homer Clute.



FIRST CAR OF NEW 1928 WHEAT

was grown by E. O. Manes, a member of the wheat association, which has its offices in Enid.

The wheat graded No. 3 Mixed, 86 per cent Hard and 14 per cent Soft. The moisture content was 14.3 per cent. The protein content was 12.3 per cent. This is the sixth consecutive year in which Grandfield has rushed the first car of wheat in the United States to market. Each time the grain has moved to the Enid terminal markets.

EXPERTS AGAIN WARN HANDLERS OF COMBINE WHEAT

Five principal sources of damage and loss in grain in connection with the operation of combine harvesters have been observed by R. H. Black and E. G. Boerner, grain marketing specialists of the United States Department of Agriculture, in a study of combine harvesting in the Spring wheat area. These observations apply also to Winter wheat in the Southwest.

These investigators declare that combines reduce the expense of harvesting and threshing, but unless the machines are operated under proper conditions and care is taken to handle the threshed grain properly, this saving may be lost. The chief causes of damage are harvesting before the wheat is ripe, cutting wheat that contains excess moisture, occurrence of green weed seeds in threshed wheat, storing damp wheat in bins, and storing wheat that

A Bird's Eye View of Europe

A Chicago Grain Man Gives His Impressions After Flying
Three Thousand Miles Over Europe

By GEORGE E. BOOTH

(Continued from June 15 issue)

IT'S A good landing and there's a great sense of relief to crawl out of the plane and into a sort of phaeton carriage which had come out from the nearby little town of Pazardjik. The shepherds are picturesque with their capes over their heads, home made boots of sheep skins and long staffs. The pilot looked back and remarked "Airdome Baa Baa", as we drove away. Two soldiers had come out with the carriage and took charge of the plane. We went to the railroad station and phoned to Sofia. The C. I. D. N. A. office reported bad weather and told the pilot to wait for further directions. There was no one with whom I could talk but a town commissioner. We got together on some German. He told me there was a train for Sofia at 12 o'clock which would arrive there at 3 in the afternoon. The rain continued and rather than remain in this isolated village I took the train. The



AIRPLANE VIEW OF BUDAPEST

commissioner helped me buy a ticket and I got into a compartment along with others. It was very stuffy and I retreated to the aisle of the car. It was slow going, climbing over and through the Balkans. About 2:30 a plane, my plane, soared over and quickly disappeared toward Sofia.

I arrived by slow degrees at 5 o'clock instead of 3, and the C. I. D. N. A. people told me the plane for Belgrade had waited until 4, then left. I did not have a visa for Jugo Slavia so could not leave on the train that night. The Jugo Slavia council refused to give me a special permit. This airline, Constantinople to Belgrade, runs every other day, but I insisted on a special plane in this emergency to take me on the next morning. The agent was interested and willing but he must wire Belgrade for permission. A message came in the morning withholding the permit and I was marooned in Sofia, the Bulgarian capital, for the day. A snow-capped mountain is very near the town. I was nicely located in the Union Palace Hotel across the plaza from the Royal Palace itself, but my luxurious corner room was on the fifth floor and there was no elevator. The rates were moderate. The principal building of interest in Sofia is a Greek Catholic temple or church. It has domes like a mosque, is in the center of a large square or plaza, and is elaborately decorated on the interior with religious paintings which show very little art. The parks are large, and the evening promenade was interesting.

About 8 o'clock on the second morning, a bright, cheerful day, the airline bus called for me. The agent was most attentive. We had Turkish coffee at the field and about 9:30 seated with the pilot I was on my way to Belgrade. We were soon over some of the Balkan mountains, not very high but picturesque to look down upon as long as the engine was hitting well, which it did. Going through the cool air at the rate of from 80 to 100 miles was thrilling and exhilarating. We sat down in the plane with only our heads out and a glass windshield several inches high was a great protection but just the same the rush of air about the head and shoulders is violent and I can readily understand the necessity for the leather teddy-bear suits

with zipper seams which most of the pilots wear. This suit, along with a leather helmet and goggles, affords quite a complete protection. There was agriculture in the valleys, a meandering river, and all in all it was a very fine lap from Sofia to Belgrade.

This field at Belgrade is large and level, the hangars are large and modern and the offices in connection look business-like. Work is still going on to complete the equipment. All of these airdomes look new with finishing touches still to be added for convenience and smooth handling of the travelers. There was a restaurant like an ordinary roadhouse near the flying field and I asked the pilot and a friend of his to have lunch with me. It was an enjoyable meal to hungry flyers,—soup, stewed chicken, potatoes, a sort of smothered lettuce salad, salami for dessert. My pilot had flat table wine, two large tall glasses, the other pilot had beer—and the bill all told was about \$1 per plate. At the restaurant I met the pilot with whom I was to fly to Budapest. He was not as convincing as the one I had in the morning but probably knew his business. We have to wait for the plane to come from Bucharest with the mail and packages.

We get a rather late start in another Bleriot Spad. Finally we are off for Budapest. The day continues bright and the sun seems warm but the air is cool as it rushes around us. We are late and it is about 4 o'clock when we land in Budapest.

Again I have to pay three American dollars for a transit visa after figuring to pay in French or Austrian money would cost more.

Soon leaving the Budapest field the engine of another Bleriot Spad we have just taken commences to spray water back on our windshield much as an automobile engine might when the radiator is running over. The pilot shakes his head and we turn back. A few minutes in front of the hangars with two or three mechanics climbing over the plane, and we are pronounced fit for travel. We taxi around and get into the air again. This maneuvering around Budapest gives me a good chance to size up the city from the air. It has impressive looking state buildings on the west side of the Danube. There are several good bridges spanning the river. The city appears to have good thoroughfares and trim looking street cars. We are now following the Danube back to Vienna. There is a lot of river traffic to watch and there are thousands of acres of overflowed land.

The sunset is beautiful but leaves us about 75 miles from Vienna and it is pretty dark when we arrive at the field which is not illuminated. It's a relief to get out of the plane and I find the outside riding all day has tired me a lot. The taxi ride to the city in a good car but at a terrific speed was more alarming than any part of the air trip of the day.

After an interesting day in Vienna I am at the airfield very early to fly to Berlin by the way of Breslau. All seats on the plane going the shortest route through Prague have been taken. It starts to rain and there is delay. There are planes tuning up for flights to Budapest, Venice, Warsaw, Paris and Berlin and quite a large group of us passengers make merry in the little crude restaurant by the field. In German and French we manage to extend international greetings. Finally I am called into a Fokker four seater monoplane, a trim outfit, good paint, well finished in all details and with a much more comfortable cabin than the Bleriot. A lady, the only other passenger, and I occupy the two rear seats and the baggage fills the front. This Fokker monoplane seems a little less steady than the Bleriot biplane and there is some sliding. This may be due to the bad weather. The prairie country is well cultivated.

As we proceed we appear to be getting into higher land, there are more wooded tracts and the rain has

turned to snow. The lady passenger has the window open which creates a cold draught on my neck. I caught cold on my outside Sofia-Vienna jaunt. I found a rain coat in the baggage, wrapped it around my neck and shoulders to supplement my own sweater, scarf and overcoat, thus managing to get comfortable. We come down at Niesse to leave mail and baggage. There's a neat set of buildings at field and I got a fairly warm cup of coffee in a neat little guest house. The boy attendant was much pleased with a small tip.

There's snow on the ground here and it's good old winter time. Soon we are off for Breslau. The heat has been turned on in the plane and we are more comfortable. The country is rougher, a mixture of wood and plains with some hilly sections. It doesn't seem long before we are circling the field at Breslau and come down before a good looking set of hangars and low administration buildings. It is about 4:30. No other plane is in sight and in fact by a most abbreviated conversation with the lady in the plane who evidently knew the schedule, I had been forewarned that we would be too late to make connections with the plane to Berlin. In the well kept waiting room or ticket office I am told by a German who speaks English that Vienna had not reported a through passenger for Berlin and while the plane had been held for a while it had finally gone on its way. I spoke freely and the German seemed sympathetic but there was no remedy—the plane had gone. I was taken to the North Hotel by the Luft Hansa Company auto and proceeded to turn an American Express Company check into German marks, then arrange for Berlin by a train which arrived in the German capital late in the evening.

After sightseeing around Berlin I am again interested in the air. It isn't a long ride from the Adalon Hotel near the Brandenburg Gate to the



AIRPLANE VIEW OF PARIS

Luft Hansa Company field. There are planes here for many destinations. The field is large, the buildings in excellent condition and I'm surprised to see what appears to be a better general equipment than at Bourget. I am escorted to a monoplane with a Fokker engine. The plane is all metal, very fit looking. The cabin will seat six. A man, a lady and myself are the only passengers. The seats are leather fitted and comfortable. There is a lever with which to adjust the heat. It is the best appointed plane I have been in. The baggage is in a separate part of the plane and the cabin is commodious. The pilots are in the front and top and there is a device whereby they can flash messages to the passengers on a plate in the front of the cabin. We taxi around the field quite a distance and see some jack rabbits hopping about. Finally we are off, flying rather low over the closely settled outskirts of Berlin.

We are soon in the open country which shows a lot of water in the fields evidently from recent heavy rains. The land looks fertile and well cared for. The general effect is more like England or the United States than Europe. The villages are of brick and stone and look clean. It is cold and rainy but we are going good on our first lap to Essen. The plane has little irregular motion even in the rough squally weather. No one is ill and after a very comfortable forenoon we arrive in Essen where lots of tall smoke stacks remind us of Pittsburgh.

After a few minutes stop we are off for Cologne

only a short distance away. We are over the historic and much traveled Rhine. The cathedral looks just as pictured but we are not given a chance to go into the city. The flying field is large and the buildings are good. A clean well equipped restaurant is a comfort. It is cloudy and the rain comes and goes but good food and a warm cabin are helpful. After some delay we are on our way to Brussels, leaving the Rhine and soon crossing into Belgium. Aix La Chapelle and Liege are off too far to the left for us to see. The country is rolling, well cultivated and prosperous looking. In Brussels we are too far from the city to see what it is like. The restaurant near the field isn't as good as in Cologne, but we go after a quite sub-

stantial *table d'hôte* menu. The plane people came after us before we got well into the meal and we are off on our last lap for Paris. We are soon going over French country made immortal by the war but without having some one who knows the country to point out the towns and important sections one cannot be sure of many points. It is pretty smooth sailing and about 6:30 we reach Paris. We are in the same plane and have the same two pilots all the way from Berlin. On the French routes there were always a change of planes and pilots once or twice during the day. Bourget seems almost like home and it is a feeling of satisfaction to come back to earth.

(To be continued)

Avonmouth Elevators Are of Modern British Design

The Bristol Port Authority Extends Cargo Handling Facilities and Adds New Grain Handling Equipment*

CLOSE to \$74,000,000 have been spent by the Bristol Port Authority in developing the Bristol Dock and Royal Edward Dock facilities at Avonmouth, England. No small part of this is being spent for extending the grain handling and grain storage accommodations. The greater part of the wharf on the eastern side of the Eastern Arm at the Royal Edward Dock above the quay level is designed for handling general cargo, while at the same time the whole of the frontage is available for grain discharge at any point of its length. In some ports this is done by placing the longitudinal grain belts in a tunnel under the quay surface, as is the case at Manchester and in the older grain handling equipment at Avonmouth. But this old system has obvious disadvantages, among them being the limited space ordinarily available for the belts and machinery and the conditions of humidity, which are almost inevitable; moreover,

also above the open spaces between the sheds and the granaries.

The two new granaries, Nos. 3 and 4, at Avonmouth are built of reinforced concrete. No. 3 is located near the wharf side at the south end of the new arm and No. 4 near and parallel to the two older granaries away from the water front. The No. 3 granary is a transit granary of 12,000 tons capacity; it is built in two wings with a covered space between to accommodate the railway sidings. The eastern wing is arranged for handling bagged grain to trucks. The land side of the western wing is similarly arranged, but on the water side provision is made for direct and quick delivery to merchant barges and coastwise craft lying in the dock, and also for the rapid loading of small craft with bulk cargo by means of scales and telescopic conveyor bands. Granary No. 3 contains 106 silos, varying from 60 feet 6 inches to 39 feet

ing conveyors of a total length of about three miles, comprising the machinery equipment of the new transit granary No. 3, of the No. 4 granary and of the sheds and galleries connecting up these granaries. They are also installing four receiving conveyor belts about 1,600 feet long, at the Eastern Arm extension, and altering existing conveying and elevating machinery in Nos. 1 and 2 granaries, in order to raise the handling capacity from 100 to 170 tons per hour. With the new plant installed, the time necessary for unloading a grain ship will be reduced at least 50 per cent. The firm is also installing three traveling pneumatic grain discharging plants, each having a capacity of 80 tons per hour, and one traveling quay-conveyor for working plants. Installed at the Eastern Arm Extension of the Royal Edward Dock, they will be used for discharging ocean-going grain vessels and delivering to the new conveyors. They are erected on steel towers, each plant self-contained and including two movable pipe booms carrying telescopic intake pipes, grain receiver, patent discharger, electrically driven turbo-exhauster and complete dust collecting equipment. The large automatic grain weighers and the weighers for bulk delivery to small ships are of W. & T. Avery, Ltd., make. Of the belt conveyors, the intake conveyors each



BAND-TIGHTENING GEAR AND JUNCTION BETWEEN CONVEYORS

have a nominal capacity of 200 tons of wheat per belt per hour; they are 24 inches wide, of two-ply canvass covered on both sides with rubber and are operated at a speed of 800 feet per minute, being installed between the transit granary and the shed U and in front of the sheds U and V. The small barge loading conveyors at No. 3 granary have a capacity of 60 tons per hour, are 18 inches wide and otherwise similar to the main conveyors.

The conveyors are driven directly from the countershafts of geared motors by means of Renold chains, a separate motor, varying in power from 5 to 30 horsepower, being provided for each conveyor. The chain drives are entirely enclosed in dust-tight cases and the chains run in oil baths. Wherever practicable, the drive is installed at the delivery end of the conveyor. The driving pulleys throughout are 27 inches in diameter by 26 inch face, and are of cast iron with the driving face covered with rubber. All conveyors are equipped with belt tighteners, ranging in travel from about 2 feet 6 inches to about 10 feet. In the shorter conveyors, up to about 200 feet long, this gear is of the screw and hand wheel type, but for longer conveyors dead-weight tensions are used. The simplest form of this type of tension consists of a vertical steel frame from which cast iron weights are hung by means of a steel wire rope. The rope passes round two sheaves into a horizontal position and the other end is attached to a four-wheeled carriage which supports the tail wheel of the conveyor.

Conveyors taking grain at several points as in the case of the intake conveyors on the wharf front and those under the silos, are provided with a traveling feeding-on chute consisting of a small steel hopper and feed shoe mounted on a steel frame with four wheels for running on the side rails of the conveyor. This feed hopper is fitted with a loading device to enable it to be clamped to the rails in any required position. The hopper is supplied with a wood cover fitted with a short canvas sleeve which is fastened round the feed



AVONMOUTH NO. 3 GRANARY NEARING COMPLETION

it is difficult to avoid some obstruction of the quay surface. Therefore, in this new development, no part of the grain machinery is under deck level and the quay surfaces between the coping and the face of the transit sheds, 17 feet, 6 inches in width, is unobstructed.

Pneumatic elevators and cross conveyors of semi-portal construction travel along the quay to any required position. All the grain belts and the machinery are housed in a wide, airy and light gallery constructed above the open sides of the transit sheds, and are fed by chute from the traveling elevators. Each of the two reinforced concrete transit sheds is about 500 feet long by 156 feet wide and has three stories. The front bay of the sheds being open at the quay level, it forms a covered platform extending the full length of both buildings, above which the grain gallery extends,

in height and from 133 tons to 80 tons in wheat capacity.

The granary No. 4 has a capacity of 20,000 tons and is a combination storage and delivery section of the port. It has six rows of silos, three in each wing. The wings are separated by railway sidings. The row of silos in each wing adjacent to the rails is arranged at a high level for sack deliveries, but the two outer rows are carried down lower. The 182 silos vary in capacity from 180 tons to 50 tons of wheat. The grain gallery which extends the full length of the wharf is continuous in front of the transit granary and across the intervening tracks to the other granaries with which it is connected. This gallery has an ultimate capacity of six conveyors.

The main contract for the grain-handling machinery, including belt conveyors and the quay-side pneumatic grain-discharging machinery, was given to Henry Simon, Ltd. They are install-

*We are indebted to *The Engineer* of London, of May 18, May 25, and June 1, for data and illustrations.

chute to prevent, as far as possible, leakage of dust. The conveyors over the silos are provided with traveling throw-off carriages whereby grain can be delivered to any desired point or to any particular bin. These throw-offs consist of a steel-framed carriage on four cast-iron wheels, the two front wheels being provided with machine-cut spur gears. On the frame are mounted the two pulleys diverting the belt from its normal horizontal position, the chute into which the grain is discharged on leaving the belt, the propelling gear and troughing, and the guide rollers. The power for propelling the carriages in either direction is supplied by the conveyor belt and is transmitted to the front pair of wheels. A locking device is provided for clamping the throw-off carriage to the conveyor side rails.

Advantage was taken of the opportunity afforded by the linking up of the belt systems between the new and the old granaries to speed up the older grain-handling machinery from its original capacity of 100 tons per hour to an anticipated capacity of 160 to 170 tons. The galleries of the older system were formed underground and arrangements have been made for the conveyors of the new system to discharge, when required, into the old tunnels. For this purpose fixed throw-off chutes are provided at certain points. The entire belt system of the Royal Edward Dock has been cleverly interlinked.

The elevators in the granaries have 22-inch belts of six-ply cotton duck covered with rubber. The buckets are 21 inches wide and spaced 12 inches apart on the belts. Elevators up to 60 feet vertical height between terminal centers have pulleys 54 inches in diameter by 23 inch face. Elevators above 60 feet high have pulleys 72 inches by 23 inches. All pulleys are of wrought iron covered on the face with rubber. The leg casing and the boot of each elevator is constructed of steel plates and the boot pulleys are 20 inches in diameter.

Three belts discharge into 5,000 pound weighers—per tip of oats—and thence into the silos in No. 3 granary. Grain passed through these weighers can be transferred into granary No. 4 or into the adjacent Nos. 1 and 2. Two of the quay bands are arranged to discharge direct through connecting galleries between granaries Nos. 3 and 4 into No. 4 where the grain is weighed in 5,000 pound automatic scales. There are all told five of these large scales. Each scale is fed from an elevator and has an hourly capacity of 200 tons of heavy grain. They are of the even-armed beam type. A feed control automatically prevents the machine working until there is at least sufficient grain in the top garner above the scale to make a full weighing. An automatic compensator allows for the weight of grain in the act of falling when the cut-off takes place at the moment of weighing, and an instantaneous self-balancing device is provided. By means of this arrangement, weights are lifted or lowered by an electrically operated jack in a few seconds, so that the scale can be balanced in a moment. Each machine is provided with a weight printer. By the pressure of a handle the starting number of the counter is printed on a numbered ticket. When the cargo of grain has been weighed, the finishing number of the counter is also printed above the starting number, thus ascertaining the net number of weighings, which is translated into terms of weight. In addition, on the same ticket is printed the weight of the residue weighing at the end of each cargo. Thus the total net weight of a cargo or load of grain is permanently recorded on a numbered ticket.

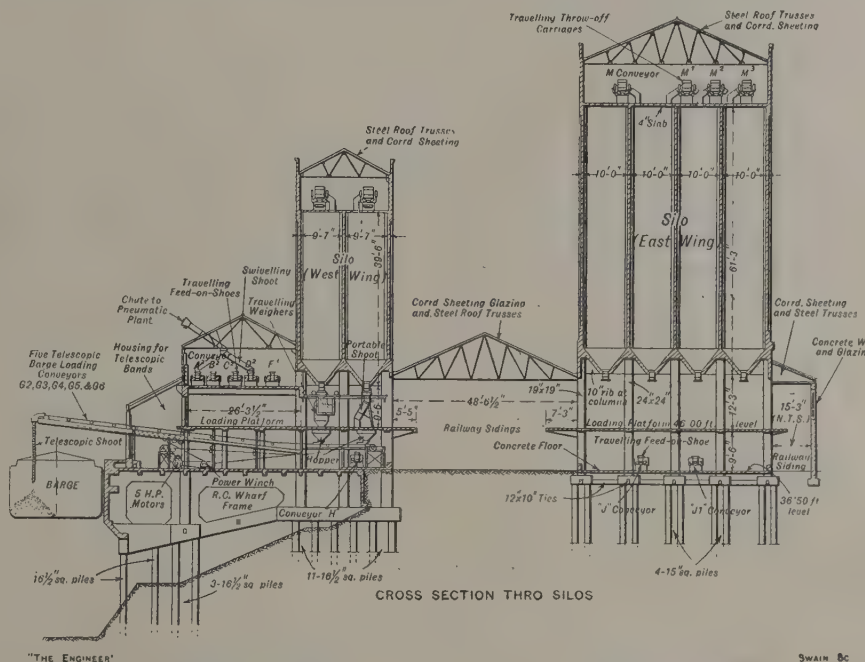
For bulk deliveries to small craft, five automatic scales, each having a capacity of 500 pounds per discharge of oats, and an hourly capacity of 40 tons of heavy grain, are installed in No. 3 granary directly underneath the storage bins in the west wing. These weighers are arranged on overhead travelling framework so that each machine can be used to weigh from either of two storage bins. After being weighed, the grain is discharged to the band conveyors below. Since the scales are each fitted with a stop counter, they can be set to weigh a predetermined number of weighings and

then automatically stop until the counters are reset. A weight printer is also fitted to these smaller scales. All automatic grain scales are totally enclosed with a dust cover against the escape of dust, even the flow of grain. The working parts, knife edges and bearings of the machines are outside the dust enclosure, are easily accessible and protected from the dust.

In connection with the weighing and sacking-off plant under the loading bins of No. 4 granary, arrangements have been made for taking away any residue from the loading bins back to the main silos. For this purpose traveling chutes have been provided in each wing, having three inlets of the same distance apart as the bin outlets, and one outlet to correspond—when the traveling chute is under the silos—with a chute from the loading floor to the conveyors beneath the silos. These three-way chutes are fed from the silos by means of portable swivelling chutes, and are mounted on a wheeled frame running on rails fixed along the entire length of the silo walls.

The complete system of electric motor equipment for the new grain handling plant in the galleries and granaries represents about 2,000 horsepower, supplied by the English Electric Company, Ltd. Nearly 80 motors are used of various powers to 35 horsepower. The conveyors and elevators

pneumatic plants are intended primarily for the delivery of parcel cargo grain and for cleaning up between decks and in similar spaces after the large floating elevators have dealt with the main bulk. They can also supplement the discharge of these elevators or can work in pairs through one hatch, if necessary. The suction pipe boom, the elevator chute and the conveyor frame are carried on steel-framed structures erected on the top of the traveler; all three can slew and luff within wide limits. In lieu of the reciprocating air pumps in use on the floating elevators, each of the pneumatic travelers is provided with a high-speed two-stage turbo-exhauster. Each of the Reavell and Co. Ltd., exhausters is designed for a nominal duty of 4,000 cubic feet of air per minute, at a vacuum of 11 inches of mercury when running at 8,500 revolutions per minute, about 110 B. H. P. being required under these conditions. A vacuum of 12 inches can be obtained when necessary to clear chokes in the grain suction pipes. The 130 B. H. P. motor is run at a loaded speed of 2,950 revolutions per minute, driving the exhauster through speed-increasing gear of double helical type totally enclosed in an oil-tight casing with force lubrication. A Reavell-Askania Regulator is used on each plant to cope with special conditions such as when handling light grains; by means of a butterfly



SECTION THROUGH NO. 3 GRANARY AND SHIPPING GALLERY

are driven individually by 365 volt, 50 cycle, three-phase electric motors. All motors are of the squirrel cage pattern for direct switching on to the supply. However, they have been specially designed to give a starting torque of twice full load without excessive rush of current. Each of the hand-operated starting gear has an isolating switch and complete interlock, and they are arranged mostly in groups with a common bus-bar chamber to form a starting switch board.

There are three identical traveling pneumatic grain discharging plants combined with receiving conveyors which travel on a rail laid at the quay side and an elevated rail carried on a girder and projecting brackets on the face of the grain gallery. These travelers perform a dual function. First they carry intake telescopic band conveyors—of 200 tons per hour capacity—which receive grain from floating elevators lying outside the vessel and feed it in the windows already referred to. These openings are spaced at 25 feet intervals. Secondly, each traveller carries a pneumatic plant capable of dealing with 80 tons of wheat per hour. The discharge from the pneumatic plant is by bucket elevator and chutes through the opening in the face of the gallery adjacent to that occupied by the telescopic conveyor.

There is also a fourth traveler which is designed to carry only a 200 tons per hour conveyor. The

valve in the suction pipe, it maintains the normal vacuum of 11 inches of mercury on the exhaustor side of the valve when the vacuum at the nozzle falls below the normal. The 10 electric motors required for operating the machinery of each of the pneumatic travelers total nearly 200 horsepower. Other details of this extension to the elevator plant at Avonmouth are shown in the diagrams and half-tones.

NEW SOUTH WALES POOL DISINTEGRATES

The New South Wales Wheat Pool, which has been in operation for several years and the subject of much discussion, will not operate again this crop year. During the 1926-7 season the pool handled some 8,500,000 bushels of wheat and may have handled close to 15 per cent of the crop. The farmers, however, have not been satisfied with the result, and it is said that the pool has returned approximately three pence per bushel net less to the farmers than have the private traders of the regular grain trade.

In recent years a strong effort has been made in New South Wales to obtain either a compulsory pool or a five-year binding contract. This failed, and the pool couldn't compete with the independent dealers.



Published on the Fifteenth of Each Month

BY

Mitchell Brothers Publishing Co.

OFFICE:

 Manhattan Building, 431 South Dearborn St.
CHICAGO, ILL.

A. J. MITCHELL.....Business Manager

New York Representative: E. M. Roberts, 587 Riverside Drive

 Subscription Price - - - - \$1.00 per Year
English and Foreign Subscription 1.75 " "

ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching persons connected with this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

Official Paper of the Grain Dealers National Association and of the Illinois Grain Dealers Association

CHICAGO, ILL., JULY 15, 1928

ELEVATOR OVERAGE PUT TO GOOD USE

THE Dominion government has decided to set aside the entire sum of money resulting from the overages in Canadian terminal elevators toward research in connection with grain problems. The amount accrued at present is about \$220,000.

The decision has been made in view of the ever-increasing number of problems respecting the production and marketing of Canadian grain. In the opinion of the government, moneys accruing from the grain trade should, as far as possible, go toward solving of problems in that trade, the most important of which for some time has been the research work in connection with rust and root rot.

The importance of research work into field crop diseases will be appreciated when it is stated that the estimated cost annually to the North American continent through such diseases ranks from 15 to 20 per cent of the total crop values.

Problems being tackled at present in the various research laboratories of the Dominion include one by Professor Robert Newton, who is undertaking an investigation of the factors governing the milling and baking quality of wheat with the purpose of ascertaining why the quality varies so widely from place to place and the possibilities for improvement by the use of better adapted varieties and better cultural practices. Professor Newton is also endeavoring to obtain a better knowledge of the possibilities and

limitations of methods for grading wheat on a quality basis. The results of these and other studies will react to the advantage of the grain trade on both sides of the border. This is approximate enough, for the overage fund has been built up by unconscious contributions from sources in these states as well as in Canada.

THE COST OF HANDLING 100,000 BUSHEL

WORKING with the United States Department of Agriculture, the Agricultural College of Manhattan, Kan., has made a survey in order to determine the actual cost of handling grain through country elevators. The average yearly volume handled by the 150 elevators studied was 100,000 bushels.

Yearly overhead expenses at the average plant included insurance on elevator (\$140), depreciation (\$400), taxes (\$240), manager's salary (\$1,500), helper's salary (\$450), and totaled \$2,730, or 2.73 cents per bushel.

The operating expenses amounted to 1.65 cents per bushel. In a year this charge covered \$90 for grain insurance, \$140 for 'phone, wires, and office expense, \$150 for inspection and weighing, \$480 for interest on an \$8,000 working capital, \$625 for shrinkage of 1/2 of 1 per cent on 100,000 bushels at \$1.25 per bushel, and \$160 for power, heat, etc. The overhead and operating expenses for the year aggregated \$4,375.

Thus it is seen that, allowing for no profit, but only for the bare cost of doing business, a margin of 4.37 cents per bushel would be necessary in order that the management break even.

In spite of several similar cost studies in recent years, many elevator owners try to fool themselves on costs, and there is and probably always will be room for one more such report.

GRAIN INSURANCE

ELEVATOR owners are no strangers to the idea of grain insurance, but grain growers, after some rather hasty introductions to this subject, still are on the outside looking in at this form of protection.

Crop insurance against severe losses is much needed by the farmer to protect himself against the individual hazard involved in agricultural production, according to a recent statement by Agricultural Economist V. N. Valgren of the Bureau of Agricultural Economics, Department of Agriculture. Such an insurance against major losses would be practicable, he says, if limited to two-thirds or three-fourths of a normal yield.

Lack of a proper demand among farmers for crop insurance is one of the most difficult phases of the insurance problem to be solved, says Mr. Valgren.

We should not put the entire blame on the farmers, however. At times they have shown themselves ready to accept the insurance and pay for it, only to find that the insurance companies were badly managed.

Two attempts by certain insurance com-

panies have been made to provide more complete insurance against crop damage. In 1917 three companies offered such insurance in the two Dakotas and Montana. In 1920 and, to a very limited extent, in 1921 two other companies made efforts to develop this field of insurance on a nation-wide basis. In each case, however, the results proved highly discouraging to the companies concerned. A severe drought in the limited area covered, coupled with carelessness in permitting insurance to be placed after crops were already doomed, accounted for the bad results.

The sudden drop in agricultural prices in 1920, under a contract covering price as well as yield, made the outcome of the 1920 venture even worse than that before. These experiments, although unfortunate, by no means prove the impracticability of general crop insurance, and the whole grain trade will be better off when the producing end gets adequate insurance facilities.

THE DUST HAZARD IN A SMALL ELEVATOR

A CONTEMPORARY remarks: "Dust explosions seldom occur in country grain elevators." That may be true, if you are broad-minded in defining the word "seldom," but the statement is ill-timed, following as it does on the heels of the dust explosion and fire at the elevator in Ewart, Iowa, and the elevator explosion at Millard, Kan.

Proportionately, the dust hazard is as great in the small elevator as in the large storage plant. There is no special providence protecting the country station against the risk of a dusty plant. Brushing, sweeping and adequate suction on the machine units which stir up the dust are all necessary in any well-arranged elevator.

Air charged with dust is an explosive mixture which needs no fuse. A spark from an unenclosed switch, a poorly housed motor, or from a high speed grinder is all that is necessary. And the dust, the switch, the motor, and the grinder all are in the average small elevator. All of them need watching.

FIVE BILLION BUSHEL

PRODUCTION of 5,200,000,000 bushels of wheat, corn, oats, rye, and barley is indicated by the report of last week from the Department of Agriculture. If this volume is realized on final harvest returns grain dealers will have 22,000,000 bushels more to handle than they did last year.

The suggested production of wheat in the United States for 1928 is 799,937,000 bushels, as compared with the 872,000,000-bushel harvest in 1927. This part of the report the grain trade seems to accept without much comment.

The report on corn, however, presents a puzzle for which no prize is offered to solve. The corn crop this year is estimated at 2,737,000,000 bushels, compared to 2,275,000,000 a year ago, and a final return of 2,786,000,000 bushels. Acreage is given as 104,000,000, compared with 98,914,000 harvested last year. The condition is 78.1 per cent of

normal, compared with 69.9 last year, and a 10-year average of 82.6. The question is: How can a smaller crop be figured out of a larger acreage and a better condition than last year?

EDITORIAL MENTION

In harvest months, twine jumps to the front rank of importance as an elevator sideline.

The new crop is coming in fast, and market bears are trying to give it their idea of an appropriate welcome.

Every flash of a summer storm is a warning to the manager who has put off his elevator insurance obligation.

Dr. G. M. Reed, of Brooklyn, N. Y., has produced hybrid oats which he claims are 75 per cent proof against smut. Who said the East isn't interested in farm relief?

Claims for loss of grain in transit must be filed with the railroad within six months from the date of unloading. Filing a claim after the limit is a waste of time, stationery, and hope.

Seven thousand acres of barley and a much larger area of range land were laid waste by fire in Yolo County, California, last month. There's a case where excess moisture content in grain might have done some good.

Acreage in oats has decreased in southern Indiana and Illinois, Missouri, Oklahoma, and Texas. This decrease, however, is more than compensated by an increase in the acreage of this feed grain in Minnesota and the Dakotas.

Some dealers presenting rail claims already have felt the teeth in Interstate Commerce Commission Order No. 9009. It provides that all scales used for the weighing of grain must be tested once a year by a competent inspector.

A line of bone meal, tankage, and special feed ingredients now recognized as standard will help guide trade to any elevator's feed grinding department. The feeder who is in the market for concentrates must have ground grain for a base.

The Minneapolis Grain Exchange lately has adopted a rule allowing one-quarter of 1 per cent tolerance on protein analysis. The result speaks for itself: Practically no re-tests have been called for since the rule went into effect, where 100 re-tests were asked for before adoption of the rule.

There does not seem to be any great dispute at all regarding probable wheat supplies in the United States. For a time there was hope that the Winter wheat production would eventually turn out to be better than some of the low estimates made a few months ago, but with the first of July, the crop estimates by private authorities failed to give hope to

the prospects of improvement. On the other hand, the Spring wheat total, instead of making up for the loss encountered by the Winter wheat crop during a long period from the time seeding was completed late in the Fall to the harvest now under way, actually gives indication of yielding less than last year.

Corn acreage, according to census figures, has declined in almost every county east of a line from Lafayette, Ind., to central Missouri and central Oklahoma. Northwest of this line, on the other hand, a general increase in corn acreage has taken place. You can't keep a good grain down.

Solid trainloads of wheat from Kansas and Oklahoma fields began rolling eastward from Wichita on July 6. For the first week of this month, at least, Wichita was the nation's leading primary wheat mart, and citizens there now refuse to be impressed with anything less than 1,000 cars of wheat corralled on local sidings.

Charles Stark, of Tulsa, Kan., took it upon himself to draw 11 samples from one gallon of wheat, and sent them to 11 different protein laboratories. He got back nine different statements of percentage, ranging from 10.76 to 11.70 per cent. There we have nine reasons why it will be difficult to incorporate the protein factor into wheat grading.

Argentine grain tariff officials reported their changes in mind on July 8. Export duty on oats this month is 1.76 gold pesos per metric ton, against 1.89 pesos; corn is .99 pesos against .86; wheat is .56 against .93 pesos for June. The sliding scale for export and import duties is a great thing, unless statisticians have to be imported to make each monthly slide scientific.

Mr. Greeley, an interior grain dealer of the Pacific Northwest, carried on the tradition connected with his name last month, when he told the Interstate Commerce Commission to go west—clear to the coast—and lower freight rates on grain as they went. Montana, Washington, and Utah farmers and grain dealers, he declares, must have lower rates to the Pacific if they are not to be eliminated from export competition.

We have heard of cottonseed being used for turf on a roof garden golf course, of flour being used in foundries, and of bran being used for polishing plateware in a tin rolling plant, but the use of grain for jewelry is a new one to us. Phillipine grain, Job's Tears, are used as parts of necklaces sold in this country at prices as high as \$10. The Department of Agriculture reports that its use for ornamental purposes preceded its use as a rice substitute food.

When Professor Dedrick, now of State College, Iowa, wrote the article entitled "Dustless Grain Elevators" for this magazine just eight years ago, he was, no doubt, as unsuspecting as were we that in 1928 his published words would be used in

court by railroad lawyers to prove a case. Modesty forbids us from devoting more than these few lines to mention the fact that the lawyers, in searching for the first accurate account of the elevator device in question, somehow found what they were looking for in the files of this publication, although they undoubtedly had access to the files of all our contemporaries. In the forefront of this issue are details of the Federal court decision involved.

The hundredweight basis may replace the bushel measure in Ohio unless some one rises to champion the *status quo*. Dealers in southwestern Ohio, who favor the change, base their position on the fact that new grain contains so much moisture that it is unsatisfactory both to producers and handlers to buy it at a bushel rate. This recalls similar attempts made in other years and other sections of the country. We do not want to be unduly pessimistic, but will note in passing that the bushel always has looked easier to displace than it actually is.

Dealers and farmers alike may save themselves much grief if they heed the warning from the Department of Agriculture on the subject of segregating emergency wheats. It is generally conceded that Soft Red Winters are going to command unusually good premiums this year. But the reseeding of much Soft Red Winter acreage to Hard Red Spring is going to complicate matters at the elevator unless much care is taken by the farmers. Soft Red Winters, Hard Red Winters, and Hard Red Springs must be segregated from each other in binning and merchandising to avoid a mixed wheat discount at the market. Admixture of more than 10 per cent of any class of wheat with another causes the grain to be graded mixed. That's only the start of the trouble. Mixed wheat, when used for seed the following year, produces more discountable mixed wheat.

In neat, alphabetical order below are 48 adjectives used by President Coolidge in referring to the late McNary-Haugen Bill, as compiled by the *Boston Herald*:

Amazing	Impossible
Arbitrary	Incomparable
Autocratic	Incredible
Bad	Insidious
Bewildering	Intolerable
Bureaucratic	Menacing
Camouflaged	Objectionable
Coercive	Obnoxious
Cumbersome	Overwhelming
Dangerous	Petty
Deceptive	Precarious
Delusive	Prejudicial
Discriminatory	Preponderous
Drastic	Prodigious
Entangled	Prohibitory
Excessive	Repugnant
Extraordinary	Retaliatory
Fantastic	Slovenly
Fallacious	Unconstitutional
Flat	Undesirable
Flagrant	Undue
Futile	Unworkable
Ghastly	Vicious
Hazardous	Wasteful

We don't believe Charles Quinn could have done any better.

A. H. LEESON
Buffalo

NEWS OF THE TERMINAL MARKETS

E. A. DOERN
Chicago

THE PITTSBURGH EXCHANGE ELECTION

The Pittsburgh (Pa.) Grain and Hay Exchange held its annual meeting on June 12. At the election for directors, George E. Rogers and Alfred Lawton were elected for a three-year term.

At the meeting of the Board of Directors on June 14, the following officers were elected: President, John Floyd; vice-president, Roy V. Harper; secretary, Alfred Lawton, Jr.; treasurer, George E. Rogers.

CORN SITUATION IN ILLINOIS

Some few fields wheat cut this week, balance will fall before the sickle soon; quantity exceeds early expectations; quality promises now to be good. A small acreage of Spring wheat was seeded in Illinois this year; same does not like temperatures in the nineties that now prevail and some blighted heads are reported.

Well the hat cleaning weather has arrived and growing corn shows more progress above ground this first week in July than altogether during month of June. Recent estimates give Illinois a prospect of more than an average crop of corn, but there are a few facts not so rosy, that might be set forth at this time. While the best of the corn belt extends only some 40 miles south of Decatur, southern Illinois often raises considerable corn. This year the line of poor corn reaches farther north in the state than usual—cold nights and heavy rains in that area caused weeds to grow as fast as the corn plants and but little chance was given the cultivators to work out the weeds.

Considerable corn was cultivated while soil was not suitable for this work throughout the state and the nice fine earth so much desired between the rows is in some cases mere furrows of clods. Three-fourths of our corn acreage here will never be cultivated again this season because it is too high to plow now; the answer is more grass and weeds in fields than usual—a favorable season from now on will help overcome this situation.

The oats fields are making good progress; some fields near St. Louis were cut this week. A small number of fields of early oats will be cut around Decatur during the coming week, but the great bulk of the crop will be cut during last half of July. With perfect weather, a very moderate movement of oats from central Illinois might be expected late in July, but—who ever expects perfect weather in this world.—H. I. Baldwin & Co., Decatur, Ill., in letter of July 7.

OLD DOCUMENTS

The old Chamber of Commerce Building in Chicago, being wrecked to make way for a new bank building, gave up from its cornerstone two lead boxes which were placed there and were all but forgotten. The first Chamber of Commerce Building was a five-story building and was the home of the original Board of Trade. When the cornerstone was laid in 1864 a lead box with some documents relating to the occasion was placed in it. The great fire of 1871 destroyed the building, but in 1872 a new building was started, and in that cornerstone were placed the two boxes, the original from the first building and another. In the older box was a portrait of John L. Hancock, president of the Board of Trade, and of R. M. Hough, president of the Chamber of Commerce, and two copies of the Chicago Tribune dated September 9 and 10,

1864. The second box contained a cartoon of Mrs. O'Leary's cow kicking over the famous lamp, a panorama of Chicago after the fire, and a copy of the Tribune of October 11, 1871.

CARNIVAL INVITES BOARD POST

On July 3 the Highland Park Post of the American Legion sponsored a street carnival and invited the Drum and Bugle Corps of the Board of Trade Post, American Legion, to lead the parade at the opening of the carnival and to play various military numbers during the progress of the street fair.

The Board of Trade Post is a splendid organization and is proud of its Drum and Bugle Corps and the music it makes. The people of Highland Park can bear testimony that for stirring the blood to a more rapid beat the corps justified its reputation.

THE PROFESSOR PUTS ONE OVER

It is hard to persuade a member of the Chicago Board of Trade that the teaching profession tends to kill initiative. Samuel P. Arnot was a college professor before he came to Chicago to enter the



SAMUEL P. ARNOT

grain trade in 1900. He came direct from Fremont College out in Nebraska where he had been close to the origin of grain and had spent much time in the study of its marketing. "One thing I've learned in those 28 years," said Mr. Arnot recently. "Whether or not our system of trading in agricultural products is perfect, it is the best system yet devised."

Four years ago Mr. Arnot was made executive secretary of the Board. For many years previous to that time trading in cotton futures had been discussed, but the conclusion had always been that the time to begin trading was not exactly propitious. It was no more propitious when Mr. Arnot took hold, but he persuaded the members to take on cotton. Only four votes were recorded against it, and now the Chicago cotton market is recognized as one of the great world marts in that commodity.

Since his election to the presidency of the Board, the members have voted to trade in stocks and bonds, and while Mr. Arnot has not borne so great a part of the responsibility in this movement as he did in cotton, under his leadership stock trading will probably get off to as fine a start as did the cotton market.

Mr. Arnot was born in Greenville, W. Va., 60

years ago and graduated from the University of Virginia. He was superintendent of schools at Harvard, Neb., and then went to Fremont College as professor. We would like a few more college professors in the grain trade if they develop the same amount of energy and skillful leadership that Sam Arnot possesses.

TWO MINNEAPOLIS COMPANIES MERGE

F. H. Peavey & Co., of Minneapolis, Minn., have bought a controlling interest in the Van Dusen-Harrington Company, grain commission house at Minneapolis, thereby combining the two grain houses with capital of \$17,000,000. This transfer in ownership of the Van Dusen-Harrington Company followed the death of the two executive heads of the firm, Fred C. Van Dusen, who died on May 28, and Charles M. Harrington, who died on March 27.

The Peavey company is capitalized at \$14,000,000. It was founded in 1872 by the late Frank H. Peavey, who started in the grain business with a 6,000-bushel elevator at Sioux City, Iowa. Then he began buying grain for Minneapolis and Duluth mills and in 1882 opened an office at Minneapolis. He moved to Minneapolis in 1884.

The Van Dusen-Harrington Company was started as G. W. Van Dusen & Co., of Rochester, Minn., in 1852. This company also owns and operates the King Midas Mill Company, with capacity per day of over 2,000 barrels.

The Van Dusen-Harrington Company will be continued by the Peavey company as a separate corporation, and the staff will be retained to a great extent.

NEW FUTURES MARKET IN GERMANY

The grain trade of the world is watching with interest the new futures market just created at Hamburg, Germany. Hamburg is one of the principal grain ports of Europe and the chief German center for trading in grain both for import and for domestic purposes.

President Samuel P. Arnot of the Chicago Board of Trade, the largest grain futures market, says that the action of Germany is but another illustration of the fact that a market for hedging and a market in which commitments may be made well in advance has proved a necessity. Cables indicate the new step was due in a measure to a desire on the part of Germany to free itself somewhat from dependence on Liverpool as the chief hedging market in Europe. But the point of general interest, in the opinion of marketing authorities, is that this latest movement toward improving marketing facilities, with the experience of the world to draw upon, recognizes that provision for futures trading must be made.

"Thirty years ago Germany carried out one of the most sweeping tests in history," says President Arnot. "There had been strong opposition to the futures and speculative markets by farm leaders. Finally Germany undertook to stop, by legislation, all speculation in farm products. A law sponsored by the Farmers' Party and enacted on the theory that speculation depresses prices, was rigorously enforced. It was in effect for several years and closely watched by economists of all leading countries.

"Instead of curbing speculation and eliminating price swings, the farmer never knew what his grain

was actually worth, buyers paid only what they had to pay, prices were more depressed than ever, and finally the farmers themselves rose up and ask for repeal of the law."

The more intelligent agriculturists, says the United States Consular Reports on that law, "seems convinced that the whole effect of the law has been abortive, and not one of any particular advantage, but a positive injury to the interests of German agriculturists."

"The effects of the law upon the legitimate interests have been disastrous. One class of business men, commission merchants, has wholly disappeared. Through its important and direct connections with the provinces and foreign countries, Berlin was formerly one of the most influential markets of Europe, but since the law against grain futures went into force, it has dropped to the rank of a small provincial market."

"On the whole, the German government is thoroughly convinced of the unjustified injury legitimate commerce suffered through prohibition of dealing in grain futures. It knows quite as well as the agrarians that this prohibition has secured for grain no better market and no higher prices."

When the farm leaders realized their serious mistake and had the law repealed and futures markets re-established, says the United States Consular reports, it was found that the only beneficiaries had been interior dealers who had been able to pay the farmers less and sell the grain for more than was possible under established exchanges with their futures and hedging facilities. Since that experience, says President Arnot, Germany has fully recognized how essential futures markets are to the economical distribution of the farmer's crop, and "the creation of a new market at Hamburg is simply another step in the further development of futures market."

A. J. LICHTSTERN DEAD

On June 22 one of the figures who helped make the Chicago Board of Trade a place of romance or anathema, according to the point of view, came to the end of his 66 years of life. A. J. Lichtstern was credited with being one of the heaviest plungers who ever operated on the Chicago Board. His operations were all done by telephone from his office in the Rookery Building and not more than once a year did he appear on the trading floor of the Board.

Mr. Lichtstern came from Germany with his parents at the age of three. He sold papers on the street and afterward worked in a bucket shop and then went into trading on his own account. He is credited with having made and lost several fortunes and in 1911 is supposed to have made over \$1,000,000 in wheat. Mr. Lichtstern lived at the Drake Hotel and had a summer home at Glencoe, Ill.

At Mr. Lichtstern's bedside when he died were his wife, Mrs. Marion Lichtstern, and Dr. Carl V. Shipley, house physician at the Drake. Surviving, in addition to the widow, are four sisters, Mrs. Max S. Sickie and Mrs. Julius Beecher of Chicago, Mrs. George Skilling of Portland, Me., and Mrs. William La Londe of Los Angeles.

Funeral services were held in Rosehill Cemetery chapel at 2:30 p. m. on Monday, June 25.

VOLUME OF GRAIN FUTURES TRADING IN JUNE

Grain futures trading in June on the Chicago Board of Trade decreased over 600,000,000 bushels from the mark set in May. Only 1,410,764,000 was traded in June, as against 2,073,784,000 in May, and the latter figure you remember was considerably less than for the month of April. The totals for each grain in June were as follows, for the purpose of comparison the May figures being given in parenthesis: Wheat, 786,742,000 bushels (1,266,452,000); corn, 524,573,000 bushels (644,680,000); oats, 56,676,000 bushels (126,656,000); rye, 42,773,000 bushels (35,996,000).

The average open contracts in futures at Chicago in June, "short" side of contract only, there being an equal volume on the "long" side, were: Wheat,

92,547,000 bushels, compared with 104,123,000 in May and 74,075,000 a year ago; corn, 83,174,000 bushels, as against 82,361,000 in May and 76,816,000 in June 1927; oats, 23,901,000 bushels, compared with 30,890,000 in May and 32,549,000 a year ago; rye, 10,249,000 bushels, as against 7,763,000 last month and 10,145,000 in June, 1927. The total for all grains in June was 209,871,000 bushels.

25 YEARS HANDLING GRAIN

Southworth's Weekly Market Review of July 7, reminds us that on July 13 Sam L. Rice of Metamora, Ohio, celebrated the twenty-fifth anniversary of his start in the grain business.

Like a good many other men of note, Sam started life on a farm. After getting his schooling he spent a short time in teaching school, but when the school term of 1903 was over he began his real career in the grain elevator at Metamora. In a few years he was running the elevator and making money. He is still running it, and in addition, with Al Ward, he owns the Seneca Grain Company, which operates the Fostoria Transfer & Storage Elevator at Fostoria, Ohio.

From the strictly local business which he first knew, Mr. Rice has branched out and is doing business pretty much all over the country. He has served as president of his state association and has had many important committee assignments



SAM L. RICE

from the National Grain Dealers Association. The Metamora Elevator Company is a member of the Toledo Produce Exchange, and Sam Rice is as well known on that market as he is in his elevator office at home. We hope his 25 years in the business will be more than doubled.

NORTH AMERICAN WHEAT PROSPECTS

Wheat prospects, estimated on July 1, by Nat C. Murray, statistician for Clement, Curtis & Co., are as follows: "Winter wheat prospects gained about 10 million bushels during the month, forecast now being 522,000,000 bushels against 512,000,000 a month ago. Some loss from hail and wet harvest is reported from the Southwest, but it has been more than offset by slightly higher estimates from most states, except in the Pacific Northwest, where estimates have been lowered."

"The condition of Spring wheat in the last week of June was 9.2 per cent below the 10-year average; very low returns are received from South Dakota and the Pacific Northwest. The indicated yield per acre is 11.4 bushels, the 10-year average being 12.6 bushels. On the basis of our estimate of 21,501,000 acres, the condition forecasts a crop of 245,000,000, which compares with production last year of 319,000,000 bushels."

"Canadian reports on the condition of Spring wheat average 10 per cent better than a year ago, being 14 per cent better in Manitoba, 11 per cent

better in Saskatchewan and 7 per cent better in Alberta at the end of June. We interpret these reports as forecasting 455,000,000 bushels, against production of 412,554,000 last year."

GRAIN COMMITMENTS REPORTS ISSUED DAILY

On July 3, the Grain Futures Administration of the Department of Agriculture commenced the issuance of daily reports as to the volume of open commitments at the close of trading in the various grain exchanges of this country. By doing this the department expects to give information daily which will be a valuable supplement to the daily reports issued on the volume of trading in grain futures.

A current history of the market will be furnished by the daily information as to open commitments, whereby the department believes that those interested may know whether long or short interests are leading.

In rising markets an increase in the daily aggregate of open commitments will suggest bullish activity, while the same phenomenon in a falling market will indicate bearish activity.

It is planned to develop the service so as to furnish daily figures showing both the volume of trading and the open contracts segregated by futures. This combination of data, the department explained, will give all interests concerned an equal opportunity to judge the influence of various factors on market conditions. Expectations are that the Grain Futures Administration will inaugurate the full service, at least at the more important contract markets, soon after the July contracts are closed. Present plans call for issuance of the first of these combined volume and open commitments reports August 1.

COMMITTEES AT INDIANAPOLIS

At the time last week that Mark H. Miller was installed as president of the Indianapolis Board of Trade the following were among the committee appointments announced:

Grain—E. Clifford Barrett, chairman; E. E. Allison, H. H. Bingham, William R. Evans, William C. Hayward, John W. Jordan, E. K. Shepperd, Frank A. Witt, I. E. Woodard.

Grain Arbitration—Edward D. Evans, chairman; Edgar D. Anderson, F. M. Montgomery.

Grain Discount—William G. Haug, chairman; C. William Maibucher, Robert B. McConnell, Dale G. Phillips, Edwin F. Winslow.

Seed—Edward M. Burge, chairman; Tully C. Crabbs, Newton Busenbark.

Grain Inspection Appeals—Hughes Patten, chairman; Lew S. Hill, Warren K. Mannon, George F. Off, Lester H. Rich.

Call—Harold D. O'Brien, chairman; George F. Buttrif, J. Glenn Steinhart.

Hay—Walter C. Garten, chairman; William F. Kassebaum, O. D. Kendrick, Bert F. Sloan, Fred A. Vawter.

ALL GRAINS SCARCE

Receipts of wheat from this territory are very light, only the clean up for the year. Cutting of new wheat has commenced and no doubt the latter part of this week and the first part of next week will be general in this territory, and the movement cannot be heavy as the acreage was reduced considerably by winter freezing. In a good many cases wheat was plowed under and other grains planted. While there have been quite a lot of prices made to the farmer on new wheat, the selling has been very limited, the farmer evidently believing that he will get more money after the grain moves than he is being bid for it now.

Receipts of corn are not at all burdensome and are being used up just about as fast as they come in. Prices on corn are holding fairly firm and our market has been well in line with all others, with all receipts taken, and we believe that the demand will continue good, as industries are still using considerable corn, although some of them are not running quite up to their limit.

The new crop of corn is coming along fine. In

this territory the crop is wonderful, but we have been having considerable rain the last few weeks and we hear of some territories that the weeds are getting ahead of the corn. The Government report today shows a crop of slightly under 3,000,000,000 which, while it is a large crop, will no doubt be welcomed on account of the scarcity of other feeds, and not very good condition of pastures.

Receipts have been light. Prices have held fairly well for the choice oats, while ordinary oats in the last day or so have been very hard to dispose of and have had a considerable break in price. New oats in quite a number of sections of this territory are not going to be a very heavy crop, as considerable of them were stunted during the cold and dry weather early and the cold weather we had during June, and no doubt the feeding of these oats as soon as they are threshed will be heavy, as old hay is scarce and is selling for as much, or more, than oats. The country has not been particularly interested in prices of new oats put out, and the selling has been very meager and around present prices we believe the farmer will hold considerable of them rather than sell them at the price.—*Mueller Grain Company, Peoria, Ill., letter of July 10.*

JAMES H. BARRETT DEAD

James H. Barrett of Cedar Rapids, Iowa, died on June 18 after a long illness, and grain dealers throughout Iowa feel their loss. Mr. Barrett had for the last 15 years been in charge of the Iowa business of Lamson Bros. & Co., Chicago grain brokers.

Mr. Barrett commenced his association with the grain business by running a farmers elevator at Waverly, Minn. Later he became connected with the Northern Grain Company and moved to Cedar Rapids in 1905.

A short time after the company dissolved and he became traveling auditor for the Western Elevator Company but in 1913 he accepted the position with the Lamson company. He was popular among everyone in the trade, clients and competitors alike.

Numerous grain dealers from Minneapolis, Omaha and Chicago went to Cedar Rapids to attend the funeral which was held on June 20. This was the only way in which his business associates could show their respect and regard for one for whom in many years of continuous business affiliation they had only the kindest recollections.



THE LATE
J. H. BARRETT

PROSPECTS BRIGHT IN NORTHWEST

There isn't a great deal to say at the present time about our cash market. Both Durum and Spring wheat that contain protein of 12 per cent or better are selling at substantial premiums. Arrivals of oats and corn are small, barely taking care of the feeders' demand.

Reports to date from all sections of the Northwest are favorable, so without serious damage we are looking forward to a good yield in all grains with the exception of rye.—*White Grain Company, Duluth, Minn., letter of July 9.*

STATE REJECTS ITS OWN BOARD OF TRADE WAREHOUSE PLAN

The Illinois Commerce Commission on July 12 rejected the application of the Chicago Board of Trade to establish a warehouse corporation for controlling elevator space for public grain in the Chicago area. The Board's application was a sequel to the special law passed by the state legislature, practically inviting the exchange to engineer the formation of the long discussed warehouse organization. Sentiment from some quarters around the Board of Trade seems to be that the application

was killed because grain men, rather than politicians, were to be directors of the proposed organization.

"The most serious defect in the suggested warehousing plan involved the subject of management," said Patrick H. Moynihan, chairman of the state commerce commission.

"As outlined, the establishment of this corporation would create a monopoly of the business of grain warehousing in the Chicago market. It would be controlled by five directors, all associated with Board of Trade activities."

GOOD MARKET FOR CORN

There has been nothing unusual transpired in the Peoria market on corn and oats since we last advised you. We have been getting, for the past 30 days, just about enough corn to enable the local industries to operate without serious trouble. They are still needing around 70,000 bushels daily and we have in one way or another been able to get the corn. There is a common impression that the supply of corn at country points, in elevators, and in the hands of farmers is a light one and this is undoubtedly correct, but we feel that there is enough corn back to put us through comfortably until the new corn comes.

The outlook for the new crop is so good throughout Illinois and Iowa and in fact everywhere that buyers are not inclined to be bullish, but believe that the supply will be ample. Of course the future markets are both up and down and if any particular danger to the new crop should come up it might make a strong situation in old corn. But this does not seem imminent just now.

Values here have been running fully up to those in the competing primary markets and we think shippers would do well to start some of their corn this way most any time.

Business in oats has been light with us—just about enough demand to take the few cars coming daily. The situation, however, has developed into one of dullness, and recent declines in both cash and futures are witness of the fact that the old oats are selling much too high compared to the new ones. It is a little difficult right now to sell old oats of any kind at a satisfactory price and with the new crop so near at hand, we believe there will be a still further depression in oats. There is nothing doing here as yet in the new wheat.—*P. B. & C. C. Miles, Peoria, Ill., letter of July 9.*

CHANGES IN MEMBERSHIP

Boston.—Arthur J. Mackay is now a member of the Grain & Flour Exchange. He takes the place of Charles F. Lingham.

Chicago.—The membership of the following have been transferred: Estate of Charles H. Countiss, Elmer L. Luibel, Arthur C. Wolfe, John C. Pitcher, William F. Fisher, William K. Mitchell, William J. Creitz, Charles O. Lamy, Burford L. Porter, Estate of Abraham Bernhard, Estate of John Wickenhisser, Clarence H. Fox. Memberships have been granted to George F. Wynn, L. Stanley Kahn, Orlando B. Saner, Clarence J. Blaker, Allen F. Moore, William E. Ullmann, Jeffrey S. Granger, Robert J. Watt, Claude A. Malden, Jonathan A. Hodgson, H. Lee Early and John F. Wickenhisser. Reported by Secretary Fred H. Clutton.

Duluth.—G. W. Rockwell and M. G. Wisted have been elected to membership on the Board of Trade. John P. Mitchell and G. E. Peterson have withdrawn their memberships in the same exchange. Reported by Secretary C. F. Macdonald.

Kansas City.—Earl E. Bryson is a new member of the Board of Trade on transfer of membership of L. J. Turn.

Memphis.—Fenner & Beane and F. X. Murphy have taken out memberships in the Merchants Exchange. Reported by Secretary J. B. McGinnis.

Wichita.—The following new members have been admitted to the Board of Trade: R. W. Payne, H. P. Lorenz, H. R. Henzley, R. I. Blood and C. C. Ogren. Reported by Executive Secretary J. J. Mann.

TERMINAL NOTES

The Albion Grain Company, Ltd., has been incorporated at Winnipeg, Man., Canada.

The Wichita, Kan., office of Goffe & Carkener, Inc., is to be under the management of A. W. Gill. Earl Lytal will be his assistant.

W. L. Ekel is in charge of the Liberal, Kan., office of B. C. Christopher & Co., which was opened a short time ago by Tom Sullivan.

B. C. Christopher & Co. have opened a grain office at Wichita, Kan., and will have a membership in the Board of Trade there.

A branch office has been opened at Enid, Okla., for the Transit Grain & Commission Company of Fort Worth with Young Devitte as manager.

William C. Engel is registered on the Chicago Board of Trade as secretary-treasurer of the J. H. Teasdale Commission Company, St. Louis, Mo.

F. H. Hodgkinson recently resigned as president of Sanday & Co., Inc., of New York City and is succeeded by R. Crowley, one of the vice-presidents.

A branch office has been established at Aberdeen, S. D., by E. S. Woodworth & Co., Minneapolis grain and feed merchants. Herbert F. Olson will be in charge.

An office has been opened at Fort Worth, Texas, by A. B. Galbraith, grain broker who has been in the grain business at Dallas, Texas, for a number of years.

The Grain Exchange Clearing Association, Inc., has been incorporated at Omaha, Neb., capitalized at \$10,000. Frank C. Bell and F. T. Buchanan are interested.

Frank E. Ford is now associated with the T. A. Riggs Grain Company of Portland, Ore. Mr. Ford was in charge of the Portland office of the Terminal Trading Company.

A revised directory of the members of the Chicago Board of Trade was off the press the first of July and may be obtained upon request from the secretary's office.

The St. Louis office of the J. C. Shaffer Grain Company has been put under the management of C. J. Williamson. He was formerly with the Overland Grain Company.

Warren A. Lamson, senior partner of Lamson Bros. & Co., grain commission and stock house of Chicago, Ill., has been elected president of the United Charities of Chicago.

Paul Riebs is now associated with his father, J. M. Riebs, in the grain business at Milwaukee, Wis. He has been manager of the Hotel Plaza in Milwaukee for three years.

H. P. Hewett has left the Bingham Hewett Grain Company of Louisville, Ky., of which he was traffic manager and is now with the First National Bank and Kentucky Title Trust Company.

William Olehmeyer is in charge of the cash grain department for J. E. Bennett & Co. at St. Louis, Mo. He was formerly assistant to Mr. Collins of the Bennett company.

Orlando B. Saner, who was formerly registered for his personal account on the Chicago Board of Trade, is now registered as treasurer of Bickley, Mandeville & Wimple, Inc., of Chicago.

Seventy-five red roses were presented to Walter G. Twitty, the oldest broker on the Chicago Board of Trade on his seventy-fifth anniversary on June 15. He has been active on the Board for 54 years.

John J. Corbett has retired from John P. Heinz & Co., and is now registered on the Chicago Board of Trade for his own account. Samuel B. Bass has been admitted as a member of J. P. Heinz & Co.

Terminal grain committees have recently been appointed at Enid, Okla., Kansas City, Hutchinson, Salina, St. Joseph, Houston and Galveston by the car service division of the American Railway Association in co-operation with the Southeast Shippers' Advisory Board. The committee at Enid is comprised of Cecil Munn, E. H. Humphrey, D. L. Lock, A. R. Hacker and W. B. Johnston.

Frank Ford is now associated with T. A. Riggs Grain Company with offices in the Lewis Building, Portland, Ore. He had been in charge of the Portland (Ore.) office of the Terminal Trading Company.

Offices have been opened by Thomson & McKinnon, members of the New York Stock & Cotton Exchange, the Chicago Board of Trade, and other exchanges, at Rockford, Ill. W. O. Kennedy will be in charge.

J. E. Edwards is now manager of the consignment department of the Updike Grain Corporation of Omaha, Neb. He was formerly assistant manager. He succeeds F. B. Bell, who is now in business for himself.

The Art Hoffman Grain Company of Salina, Kan., is to be represented in St. Joseph, Mo., by L. A. Laybourn. He has been elected to membership on the exchange and has offices at 1004 Corby Building, St. Joseph.

Charles Colby was re-elected to the position of secretary of the Hutchinson (Kan.) Board of Trade and Ralph Russell was re-elected treasurer, at the first meeting of the Board of Directors following the recent annual meeting.

Mark Smith & Co., Chicago, Ill., of which Mark Smith and John L. Hoerber were members, have dissolved. Mark Smith is now registered for his own personal account on the Chicago Board of Trade, as is John L. Hoerber.

Offices have been established at 501-3 Board of Trade Building, Portland, Ore., by Walter L. Johnson, who will conduct a business in grain, feed and flour. He was for the last 10 years associated with the R. T. Johnstone Company, Inc.

The export sales department of the Simonds-Shields-Lonsdale Grain Company of Kansas City, Mo., is under the management of William Rahbek of New York. He was formerly connected with the Hansen Produce Company operating in the New York market.

Samuel Phillips will represent the Norris Grain Company of Chicago and New York in Baltimore, Md. He has taken an office in the Chamber of Commerce Building there and has made application for membership in the Chamber of Commerce.

Henry Edwards of Floydada, Texas, is the new president of the Plainview (Texas) Grain Exchange. The other officers are: C. O. Byrnes, Tulsa, vice-president; A. G. Fox, Plainview, secretary-treasurer; R. C. Ayres and E. N. Noble, directors.

Max T. Moritz has opened an office at 1403 Corby Building, St. Joseph, Mo., for Goffe & Carkener, Inc., one of the leading grain firms of Kansas City, Mo. He has been elected to membership on the St. Joseph Grain Exchange on transfer from B. V. Wasser.

A grain and stock business has been entered into in New York City by Edward F. Clapham, Boston grain broker. Mr. Clapham has been a member of the Boston Grain & Flour Exchange since its formation in 1925 and previous to that of the Boston Chamber of Commerce since 1887. At Boston Mr. Clapham had been associated with Clapham & Maynard in the grain business.

Art Johns has succeeded Hal Davis as manager of the Kansas Grain Company of Wichita, Kan. Mr. Johns was formerly with the Wichita Terminal Elevator Company. Mr. Davis will become associated with the elevator company organized there by Bruce Young and Fred F. Burns.

At the annual election on the Salina Board of Trade the following were elected to office: President, Harry Robinson of the Robinson Milling Company; vice-president, Ted Branson of the Ted Branson Grain Company. The directors are Bryan Lynch, Art Hoffman, Roy Faith and E. C. Wyatt.

The Houlton-Connell Grain Company has been formed with offices in the Cooper Building, Denver, Colo., by L. H. Connell and Rex Houlton. Rex Houlton has conducted the Houlton Grain Company for the last eight years; Mr. Connell has been with the Colorado Milling & Elevator Company for

16 years. Mr. Houlton is a past director of the Denver Grain Exchange, and Mr. Connell is a past president and past treasurer of the exchange and has also served as a director for a number of years. Mr. Connell is a director of the Grain Dealers National Association.

The Portland Merchants Exchange has changed Rule 14, Section 1, of its Grain Rules to read: Members operating as receivers shall make returns on grain deliveries within 15 days, the unloading date shown on the inspection certificate to determine.

A market for trading in grain futures is to be established at Vancouver, B. C., according to a recent decision of the Vancouver Merchants Exchange. It will be known as the Vancouver Grain Exchange Clearance Association, and will be incorporated under the laws of the Province of British Columbia.

The steamer *Sturgeon Bay* has been bought by the Donahue-Stratton Company, grain dealers of Milwaukee, Wis., and will be used as a floating grain drier. It will be used to salvage cargoes of sunken ships or grain damaged in elevator fires. The steamer was built in 1918 and used by the naval reserve.

H. P. Iverson is again the president of the Ogden (Utah) Grain Exchange. Other officers re-elected were: W. H. Barrett, Salt Lake City, vice-president; B. L. Slack, Ogden, secretary. The directors include the officers and E. R. Alton, C. J. Parker, M. W. Sherwood, J. J. Neville, S. H. Nelson and L. S. Beckett.

A. H. Bewsher has dissolved the Bewsher Company, which has for 21 years been conducting a grain commission business in Omaha, Neb., and is now associated with Updike interests. He is in charge of the commission department of the firm, succeeding Frank C. Bell, who has gone into business for himself.

The Vancouver Merchants' Exchange is sending by mail to all parts of the world small sacks containing portions of the eighty millionth bushel of wheat arrived at that port for export during the 1927-28 season. The samples are marked with the slogan: "From half a million in 1920-21 to 80,000,000 in 1927-28 and still growing."

N. E. Carpenter of the Hall-Baker Grain Company of Kansas City, Mo., has been made vice-president of the Kansas City Board of Trade, to succeed J. J. Kraetli, who became president of the exchange on the death of J. A. Theis. Mr. Carpenter was a director of the exchange and is succeeded as such by Harry J. Smith of the Mid-Continent Grain Company.

THE CORN BORER BATTLE CONTINUES

The task of the Government in undertaking to check the corn borer has been no small one, and the field service has had to expand to some degree



B. E. BROOKS

and strengthen its forces to contend with this important fight. To most of us who have motored through the country in the north and east the quarantine stations along the road are not an un-

familiar sight. Each conveyance—be it an automobile or a horse and wagon—is stopped and inspection is made to see whether corn which has been injured by the corn borer is being transported from infested areas into the sections so far immune. In addition to such duty, there are many other important sides to the work carried on in this phase of the Department of Agriculture's campaign.

The accompanying illustration shows B. E. Brooks, connected with the Toledo office of the Department, along with one of the Government's official cars assigned to this duty. Brooks' duties include much photographic work, all of which is a part of the educational campaign; and in the course of his duties he has covered many thousands of miles in states as far east as New York and as far west as the Indiana state line. In driving across the northern part of Ohio with a representative of this publication last month he related the incident of the old farmer who was stopped by quarantine agents on a county highway. When they demanded to know "if he had any corn", he wilted and delivered over a pint of the kind of "corn" which never gets bothered by corn borers but which is also frowned upon severely these days by the Government.

ELEVATING GRAIN ON A TROPIC PLATEAU

Eight times the size of the country which claims it, the Portuguese province of Angola sweeps back from the west coast of Africa nearly 800 miles. And these are 800 of the hottest miles on earth along which grain is grown; the equator is less than 400 miles from the burning white line of sun-bleached stones which marks where northern Angola ends and the Belgian Congo begins.

The accompanying illustration reveals a grain storage feature which is as much a part of Angolan village landscape as the ironclad elevator is of



STORING GRAIN IN ANGOLA, AFRICA

American town topography. The corn and wheat is hoisted into the tree tops at harvest time, and the heavy hides which hold the grain give protection against the elements, while the height of the trees defends the harvest from plundering animals. Within a stretch of 1,500 miles in southern Africa, two extremes of grain storage methods may be seen. In Cape Town, lying in the shadow of Table Mountain, are grain terminals as up to date as any to be seen in Buffalo or Fort William. Traveling north to Angola, the primitive type of grain storage unit, illustrated here, still is retained by the natives who have not seen fit to improve upon this device instituted by their ancestors.

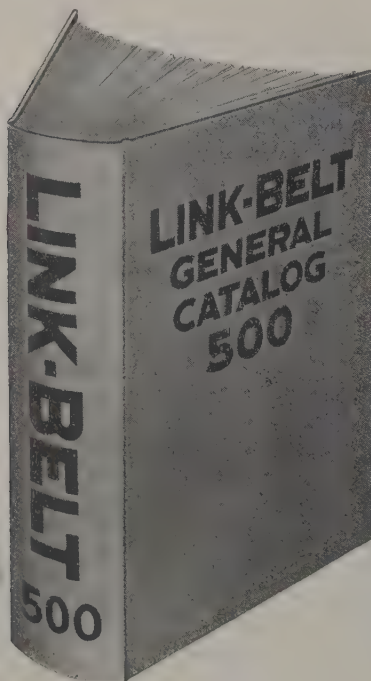
IN Roumania the new barley crop is good, according to a trade report of June 7, which stated also that the European crop is generally satisfactory but slow in developing. The first official estimate of the 1928 barley area in Bulgaria is 628,000 acres. That figure is 13 per cent above the area sown last year and ranks next to the record figure of 643,000 acres sown in 1910.

TRADE NOTES

John S. Metcalf Company, Limited, of Montreal, Canada, announces that it has moved into new quarters at 460 St. Helen Street. The company has designed, built and supervised many large elevators and other structures in the Dominion, and at the new address is better equipped than ever to serve the trade in these capacities.

L. H. Des Isles, manager of the Zeleny Thermometer Company, Chicago, returned home this week from Ellsworth, Me., a Hancock County city situated on the east coast, where he spent his vacation. On the broad waters of the bay, Mr. Des Isles had opportunity to give his new motorboat a good trial. W. R. Young, also of the Zeleny organization, left for Maine July 6, and now is enjoying his vacation in the region where cool Atlantic breezes make unnecessary any temperature control system.

If the amount of usable information put into a general catalog is any criterion of its worth, then the Link-Belt General Catalog 500, published by Link-Belt Company of Chicago, Indianapolis and Philadelphia, is a good example of what an informative general catalog should be. It consists of 1,088 pages and not only covers in engineering data and list prices, the complete chain, sprocket, power transmission, elevating and conveying and



engineering divisions of that company's business, but contains considerable data for which the engineer has use. In developing this book, it was evidently their purpose not only to make its contents of engineering information so ample that engineers might design plants of a standard character without their aid, but also to supply price lists so complete as to enable the experienced buyer to determine net prices of his purchases. The book is admirably arranged to serve these purposes. In addition to being an unusual engineering catalog, it is a text book of the conveying, elevating and chain transmission art.

O. B. Roberts, an expert in rubber through his long connection with the Diamond Rubber Company of Akron, Ohio, gave a most interesting address before the National Industrial Advertisers Association at St. Louis in June. He showed what material savings had been made through standardization, saving which accrued to the manufacturer and were immediately passed on to the purchaser. In regard to belting, he said: "To show concretely what can be done we can say that in our Diamond Conveyor Belt line we have reduced the number of sizes on which we regularly figure prices from

56 to 16. In Tripper Conveyor Belt the number of standard sizes has been reduced from 80 to 14. Kohinoor Ore Elevator Belt sizes have been reduced from 14 to 7. Our regular grades of transmission belting have been reduced from 14 to 8."

The feed grinding business is keeping hundreds of elevator operators busy throughout the year and making the profit from grain handling look meager by comparison. Sprout, Waldron & Co. of 1203 Sherman Street, Muncy, Pa., has installed feed grinders and mixers for many operators who are now making real money for the first time in years. The mixer can be used on sweet feeds as well as dry, and the grinders produce a fine uniform meal which the trade likes. They will be glad to answer fully all inquiries in regard to installation.

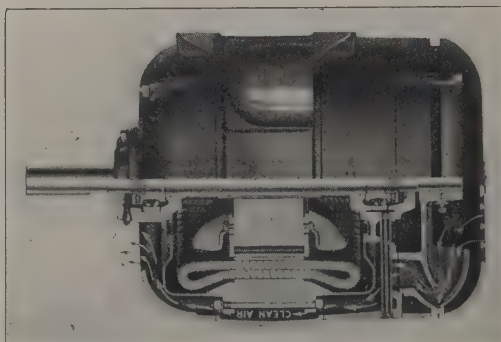
The combine is making a marked difference in the grain movement. Harvest shipments are being crowded to the terminals and every device which expedites the handling of grain after the car has been spotted is a distinct improvement. One of the greatest aids to speed in unloading cars is the Peterson Pneumatic Grain Door Remover, made by the Strong-Scott Manufacturing Company of Minneapolis, Minn. Two minutes of time and 100 pounds of air pressure is all that is required to remove a grain door, without breaking or splintering. This is something that should interest every terminal elevator.

The prospects for a grain harvest with a high moisture content has convinced many elevator operators of the necessity for having drying equipment. The O. W. Randolph Company of Toledo, Ohio, makers of Randolph Grain Driers, reports that the Cargill Grain Company is having a drier installed by the Barnett & Record Company; Albert J. Thompson of Wycombe, Pa., has installed one; the Searle Elevator at Fort William, Ont., is having one put in by the Fegles Construction Company, and the Ralston-Purina Company is having one installed in its new Minneapolis plant, after a year's trial of the drier in the Checkerboard Elevator at St. Louis.

AN AID TO PROFIT MAKING

By R. H. BACON
Fairbanks, Morse & Co., Chicago

In the past decade rapid progress has been made in the improvement of milling processes and in the various types of equipment used in connection with those processes. But the improvements have not been limited to the milling machinery itself but have also included the method of driving such



CROSS SECTION FAIRBANKS-MORSE TYPE HAC MOTOR machinery, weighing the raw and finish products and in similar details.

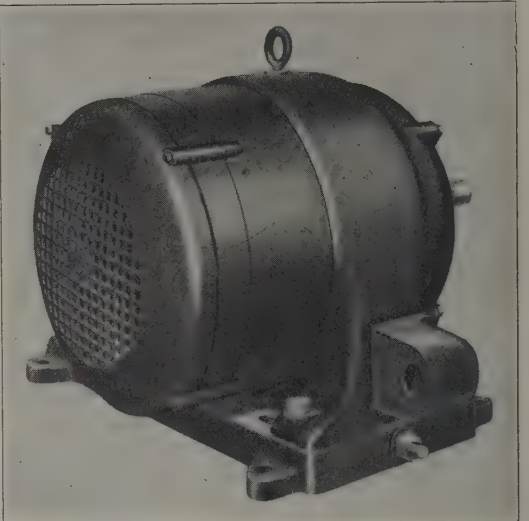
In the economic solution of the drive problem electrification has become increasingly important and Diesel engine power either as direct drive or with motorization has made rapid progress.

The application of electric motors to the milling industry has kept pace with other developments. In the successful application of motors in this field of service it has been necessary to overcome a number of difficulties.

The operating conditions in flour mills, feed mills, and grain elevators are unusually severe due to the presence of dust. In the early days of motor application when the ordinary open squirrel cage motor was used this dust tended to clog up the

windings which in time would cause the motor to heat up to the point where it might affect the insulation, shorten the life of the motor and increase the fire hazard in the plant. This dust also tended to work into the bearing where it mixed with the oil and interfered with lubrication.

One of the first improvements in electric motors which was found to be especially beneficial in the application of motors to the milling industry was the development of ball bearing motors. The bearings in the ball bearing motor are very definitely sealed so that the grease used for lubrication cannot get out and external dust cannot get in. Thus the problem of dust in the bearings was eliminated and at the same time the leakage of oil onto the floor and the windings of the motors, frequently encountered with sleeve bearing motors, was also



THE NEW FAIRBANKS-MORSE TYPE HAC MOTOR

eliminated. The ball bearing motor eliminated the necessity for frequent inspection of the bearings and reduced the lubricating job to a simple annual or semi-annual greasing.

If sleeve bearings are neglected and the bearing runs dry the bearing itself is not only damaged but the burning out of the babbitt causes the rotor to drop down on the winding with serious results. The application of ball bearings thus eliminated another serious objection to the sleeve bearing motor since no serious damage is done to the motor even if the bearing should run dry which in itself is highly improbable since such a small amount of grease lasts for such a long period.

Even the development of the ball bearing motor did not entirely solve the problem of motor application in flour mill service. Dust could still get into the windings of the motor and it was not until the development of the enclosed type of motor with vent pipes that this problem was overcome. This motor was so constructed that all the windings and working parts were completely enclosed in a cast iron or steel shell with openings being provided for the attachment of vent pipes leading to the outside of the building. Due, however, to the difficulty of installing these vent pipes so that they would not be in the way of belts, machinery and interfere with operating processes this type of motor did not prove to be entirely satisfactory. It was an important advance but as the vent pipes were sometimes knocked down and not replaced this type of installation did not give the maximum protection desired.

The next step in motor development was, therefore, what is sometimes called the "clean-air-jacketed motor" with the windings enclosed in a thin copper shell and equipped with a fan to blow air against the shell so that the temperature of the windings could be kept within safe operating limits.

One of the most interesting developments along this line is that of Fairbanks, Morse & Co., Chicago, Ill., in a motor which is known as the type HAC. The cross section view on this page gives a clear idea as to how this motor is constructed and how it operates. It will be noted from this sectional

July 15, 1928

view that the fan circulates the air around the winding shields but that in addition this fan also acts as an air cleaner. Any dust or dirt that is drawn in by the fan is discharged by centrifugal action before this air reaches the winding shields. Thus the winding shields and the inside of the stator frame are kept free of dirt and dust and the effectiveness of the ventilating air is increased.

The new type of motor offers distinct advantages from the standpoint of fire prevention. Insulation failures caused by dust accumulation in the windings is entirely eliminated. Even if an insulation failure should occur the blaze would be confined to the inner shell of the motor and would die out very quickly from lack of oxygen. This type of motor also reduces the cost of maintenance since

average of \$1.51 per bushel in the South Atlantic States. The average yield per acre for all the farms was 18 bushels, and the average area 63 acres. Land rent was the largest single item of cost, averaging \$6.28 per acre.

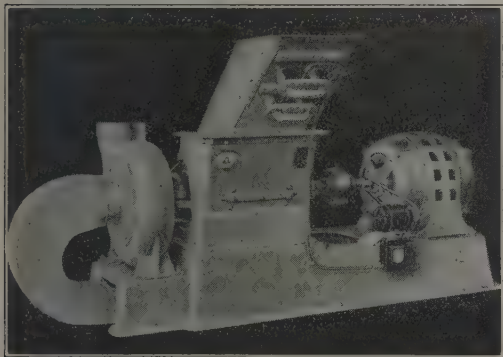
Oat growing costs on 3,590 farms ranged from 50 cents a bushel in the West North Central States to an average of 72 cents per bushel in the South Atlantic States. Yields for all farms averaged 34 bushels per acre, the area reported to oats averaging 26 acres. Land rent, the largest item of cost, averaged \$5.61 per acre.

The yields of the several crops on the farms reporting were generally higher than the estimated yields reported by the Federal Crop Reporting Board for the same crops. Farmers, also, in making returns on this survey, tended to give costs

on only the crops in which they specialize, so that the figures are influenced to a greater extent by the commercial than they are by the noncommercial areas.

The department has been making this type of cost-of-production survey annually since 1922. The figures for the six-year period since then show that the average corn production costs on the farms reporting have averaged 66 cents per bushel in 1922; 68 cents in 1923; 82 cents in 1924; 69 cents in 1925; and 70 cents in both 1926 and 1927.

Average wheat production costs were \$1.23 per bushel in 1922; \$1.24 in 1923; \$1.22 in 1924; \$1.32 in 1925; \$1.12 in 1926; and \$1.18 in 1927. Oats costs averaged 53 cents a bushel in 1922; 52 cents in 1923; 50 cents in 1924; 51 cents in 1925; 53 cents in 1926; and 54 cents in 1927.



A FAIRBANKS-MORSE MOTOR ON ANGLO-AMERICAN MILL

it eliminates the necessity for detailing a man to blow out or clean the motor. Insurance rates are thus reduced. Since the number of motor failures is also reduced there is a considerable saving as compared with the use of open frame types of motors. Thus the slightly increased cost of these motors is more than justified.

NEW DEPARTMENT CHIEF

Appointment of Nils A. Olsen as chief of the Bureau of Agricultural Economics, effective July 15, was announced recently by Secretary Jardine of the United States Department of Agriculture. Mr. Olsen has been assistant chief of the bureau, in charge of research, since May, 1925, and succeeds to the chiefship made vacant by the resignation of Lloyd S. Tenny, who has taken an executive position with the Association California Fruit Industries, Inc.

Mr. Olsen joined the Department of Agriculture in 1919, as an assistant agricultural economist, and has been progressively promoted since then through the various economic activities of the department. As assistant chief of the Bureau of Agricultural Economics, Mr. Olsen has been responsible for the development and co-ordination of research work in the bureau. He has also had administrative charge of the Division of Agricultural Finance, directing the research and investigational work of that unit.

GRAIN PRODUCTION COSTS ON SELECTED FARMS

The cost of producing corn on 4,778 farms for the 1927 crop averaged 70 cents per bushel; wheat on 3,119 farms \$1.18 per bushel, and oats on 3,590 farms 54 cents per bushel, according to a survey just completed by the United States Department of Agriculture. These average cost figures, the department says, are not applicable to total grain crops produced last year, and relate only to the farms covered by the survey.

Corn production costs on these farms ranged from an average of 57 cents per bushel in the West North Central States to 85 cents a bushel in the North Atlantic States. Yield per acre for the 4,778 farms averaged 33 bushels, and the average area was 40 acres. The largest single item of cost was land rent, which averaged \$5.91 per acre.

Wheat production costs on 3,119 farms ranged from \$1.06 per bushel in the Western States to an

Hints for the Elevator Millwright

Big Bill Davis Aligns Head and Foot Shafts, Sets A "Quarter Turn" Belt and Adjusts Some Mortise Gears

By JAMES F. HOBART

"HERE we are," said Big Bill Davis, as the car stopped before the grain elevator door. "Now, let's see that receiving elevator which you say has such a bad kick in it that the bucket belt won't 'track' upon its head and foot pulleys.

"It looks to me," Big Bill continued, "as though the head and foot shaft were out of alignment with each other, also it seems as though the elevator actually leans backward. How did you align the shafts anyway, with one 80 feet above the other?"

"We tried to align the shafts in the usual way, with two plumb bobs suspended at the ends of the headshaft; it's 80 feet up to the head shaft and we couldn't find a time when the wind would not blow those plumb-lines about so that we couldn't be sure of anything."

Mr. Davis then hunted up a couple of pieces of narrow board about eight feet long and straightened one edge of each with a carpenter's jointer plane. An opening was then made in the elevator just vertically above the foot shaft and high enough that one piece of the board, when pushed through the holes laid flat on top of the elevator foot-pulley. The board was placed even with one end of the foot-shaft, and extended several feet past the other end of the shaft. The board was then plumbed so the straight edge laid vertically above the foot shaft using either the side of the shaft, or its center, as proved most convenient. The straight-edged board was then fastened securely in position. Mr. Davis did this by erecting a couple of "ledgers," one at either end of the straight board, upon which ledgers the straight board laid. After it had been aligned to his satisfaction, Mr. Davis nailed the straight board to the ledgers, using two eight-penny nails in each end and leaving the nails projecting a quarter of an inch in order that the nails might be easily drawn should it become necessary to move the straightened board for any reason.

At this point, Mr. Davis called attention to the power used for driving the elevator leg and said, "As this elevator is driven by an independent electric motor, no further attention need be given to the position of the straightened board, but, had the elevator been driven by engine power, then it would be necessary to determine whether or not the straightened board was parallel with the shaft from which power was to be taken to drive the elevator. If the board and shaft proved to be out of alignment," Big Bill continued, "they must be made parallel, even if it be found necessary to twist the elevator boot one way or another." As the leg was motor-driven, this matter gave no trouble.

The straight board was allowed to project on that side of the elevator leg where there was the best chance to see to the top of the elevator, 80 feet or so above. The other straightened board was handled in a similar manner, but placed on

top of the head pulley and lying loose upon another pair of ledgers, the board extending past the end of the head shaft on the same side of the elevator that the other straightened board projected.

Mr. Davis then asked for two lamp-cord extensions, with which he proceeded to place a couple of incandescent lamps in such position that a strong light was thrown, in a slightly downward direction, upon the straightened edge of the board on the elevator foot-shaft. The lamps were then shaded with some boards, to prevent light from being thrown upward. Everything which was in the way was then removed so that as Big Bill stood above the head shaft, he could look down, past the upper straightened edge board and see the lower board, or at least, a portion of the extreme end of that board, also a portion at the end of the foot-shaft. Big Bill squinted past the edge of the upper board, which he juggled around upon its supporting ledgers, until the edges of both boards were exactly in alignment with each other.

"There," said Big Bill, "now fasten this board to its ledgers, then, plumb down to the head shaft and see how much it is out of alignment with the foot shaft."

"Nearly three inches," said a mechanic who did the plumbing down. "No wonder the belt wouldn't 'track'!"

"Now then, move the head shaft so the shaft will line up with the board and I'll guarantee the bucket belt will attend right to business," said Big Bill. "But wait a minute! If it is important that the two shafts be vertically above one another, then we must plumb-up from the lower board. Mr. Davis then asked the elevator mechanic to hang a plumb-bob from the upper straightened board, letting the bob hang just below the lower board. This was done, but, as the elevator workman said, it wouldn't hang nowhere, but was moved constantly to and fro by air currents acting along the 80 feet of plumb-line.

"Plumb-line no good, eh?" asked Big Bill. "Fetch me a brick and a bucket of water and I'll soon stop those vibrations."

Mr. Davis looped the line around one end of the brick—as close to its end as the line would stay without slipping off. He did not even remove the little half-pound plumb bob. Having made a hitch so the brick would hang as nearly vertical as possible, Mr. Davis placed the brick in the bucket of water and adjusted the bucket and length of line so the brick hung free and touched nothing but water.

In a short time, the bob had settled down and the line hung reasonably quiet. It would yield to puffs of air, but would immediately return to a vertical position again as the water, acting as a "dash-pot," prevented the small movements of the bob by wind-currents, but did not prevent the line from assuming a vertical position.

"Now, boys," said Big Bill, as he put on his coat

and started to leave the elevator, "if you and that elevator leg plumb, then move the top straight board over until the bob-line shows it is directly above the lower board. Then, squint the two boards into parallel again, move the top shaft into line with the board, tinker the leg if necessary, and I'll guarantee that you'll have no more trouble with that bucket-belt."

TAMING A QUARTER-TURN BELT

"Please don't go away yet, Mr. Davis," called the elevator owner. "We have a couple more contraptions which we would very much like to have the stuffing knocked out of."

"Trot 'em out. I'll stay with you just as long as you feed me well with your old jobs."

"Here it is, Mr. Davis. This corn sheller has to run right out in everybody's way in order to reach its pulley with the fast-running six-inch belt. You know cornshellers 'run like 60' and take a good deal of power, so it is no joke to belt one of these machines properly. Now, if that corn sheller could be turned one-quarter way around, we would have plenty of room, but that would require a quarter-turn, or 'reel' belt, and we have never been able to place the machine in such position that the belt would stay very long on the pulleys when running quarter-turn. We nearly had it. The belt stayed on the pulleys all right while the machine was running empty, but we couldn't put on a load, because the machine ran backward."

"Ran backwards, eh? Put corn on the cob, instead of shelling it off, I suppose. Well, if you had moved that machine a distance equal to the diameter of either the drive or the driven pulley it would have reversed the direction of rotation, wouldn't it?"

"Would it? Well, I never even heard of that before." The shaft from which power is to be taken lies directly above the corn sheller, so it should prove a very easy job to locate the corn sheller in such a manner that the belt will travel perfectly."

Under Big Bill's direction, the workmen yanked the corn sheller a quarter way around; then Big Bill had the man who owned the plumb bob, hang a string over the line shaft pulley, and directly in the middle of the pulley face. Then, he had the corn sheller "cockeyed around" until the center of its pulley-face exactly touched the suspender line. "Now, put on the belt and see what it will do," said Big Bill.

"Mr. Davis," said the plumb-bob owner, "Don't you want the corn sheller squared with the main shaft? It looks as if it might be a little bit out."

"No need of squaring it with the main shaft; quarter-turn belts don't care a 'rap' whether they are squared or not. Why, you may skew that corn sheller around to any possible angle, and, so long as those two pulley-faces center and are plumb with each other, the belts will run, even while the shafts make any angle with each other, from 0 degrees, up to 180."

REVERSING A QUARTER-TURN DRIVE

The belt was laced and placed upon the pulleys, the power started, and to the amazement of the elevator owner, the belt stayed on the pulleys as though it had always belonged there. But then a shout—and a big one—went up from the elevator men—"The corn sheller is running backwards."

Mr. Davis had the power shut off, then he turned to the elevator owner and said, "The main shaft lies north and south, the corn sheller east and west and the main shaft pulley is about twice as large as the pulley on the corn sheller. Now which had you rather should be done, move the corn sheller directly east a distance equal to the diameter of the main shaft pulley, or move the sheller north one diameter of the sheller pulley?"

"Move the corn sheller to the east, for that will bring the machine still farther out of the way."

The plumb line was hung to the other side of the drive pulley on the overhead drive shaft; when the owner said, "Do you mean to tell me that the machine can be turned around 'cornerwise' and still keep the belt on the pulleys? If that is so, then cut the ends of the machine around a couple of

feet more to the east. It will take the corn sheller entirely out of the way."

The machine was skewed around, keeping its pulley-face center exactly fair with the plumb-line, then, the belt was replaced and the power turned on, when away went the noisy corn sheller, singing its song. A heavy charge of corn was dumped into the machine, but the belt never deviated a particle from its perfect tracking upon both pulleys.

MORTISE GEARS

"Now, Mr. Owner," said Big Bill, "fetch out the other conundrum. If it was no tougher than the one about quarter turn belts, I'll be out of here in an hour."

"Right this way, Mr. Davis," said the owner, opening a small door and stepping out of the elevator building into a sort of shed which covered a water wheel setting. "Just take a look at this mortise gear. This elevator is operated by water power for more than half the year, when we are not shut down, tinkering these gears. Just look at the wooden cogs in that gear. They are almost new—have not been run a month, and there are two of the cogs gone already; a few others badly damaged, while the remaining ones are as good as on the day they were driven into the gear. What I want to know is—can that gear be made to run for six months without my having to be continually putting in new cogs? Now, before we can use the water power again, we will have to put in five or six new cogs, but they will soon go to pieces again, while the other cogs remain good. Now, if you can tell us what the trouble is with that gear, please spill it quickly, and then tell us how to apply the remedy."

"I'll do it, Mr. Owner, with great pleasure, and you can fix the gear right here, and your own men can do all the work. Just consider how that mortise gear was made. Those mortises were formed by cores which were stuck by hand into holes in the drag portion of the mold, then the cope was lowered upon the cores which were intended to enter corresponding holes in the upper part of the mold. Is it to be wondered at that occasionally one or more of the cores sag out of position a little, forming a pocket a little to one side, or perhaps inclined sidewise a bit?"

"You are using finished cogs; when such cogs are driven home and keyed fast, they must necessarily stand exactly as true—or untrue—as the mortise in the gear."

"It is evident that the mortises are slightly out of place in at least two places in this gear—perhaps in more places, which do not give trouble at present. Were it possible to run this gear in the opposite direction, the cogs which now fail might last as long as the other cogs, but there is a possibility that other cogs would fail, in one or more other places around the gear. It is this way: The cogs in the out of place pockets chance to stand ahead of the other cogs and so receive an unmerciful pounding which soon wears away, pulverizes or breaks them."

USE HALF-FINISHED COGS

"Mr. Davis, that sounds interesting, and I am glad to know the cause of the breakage of cogs, which is not only expensive, but is a big time and power waster. Now, please tell me how to cure the trouble."

"I see that you purchase fully finished cogs for the reason that you only have to drive and key them in place. Now, then, don't buy any more of them. Purchase half finished cogs, with the tenons fully formed but with the end blank and unformed, then, finish the cogs yourselves, and you will have a mortise gear which will last, probably for years, or until the wooden cogs have worn down too thin to possess the necessary driving strength and fail ultimately by breaking off."

"However, before you knock the cogs out of this gear to fill it with half finished ones, revolve the gear slowly, by its own power, or it twists and notice whether or not the gear rim wobbles to any extent; and if it does, mark the 'high' place with a 'loud' mark, made by a cold chisel or a big center punch, and in finishing the new cogs work

their height from the marked point in order that there may be no short cogs."

"Select one of the old cogs at or near to the 'high' mark on the gear rim. Choose a well-shaped tooth, and on it draw horizontally a section of the pitch diameter or circle, as close as you can locate it. By rolling the gear around until the selected cog or tooth meshes in the middle of the pinion, the pitch circle can be approximated closely enough for all purposes. Locate the pitch circle also on the small, or inner end of the selected cog. Next, on the pitch lines thus located and marked, make a center punch mark in the exact center of the cog ends or edges. Next, again place a piece of thin sheet metal against the marked cog, pierce the metal and insert a very small nail exactly in the center-punch mark in the cog. Hold the metal firmly against the cog and trace around the cog, marking its shape on the sheet metal. Cut closely to the lines thus marked, making a neat templet of the tooth end or edge. Make another templet for the small end of the cog or gear tooth. Let the templet fit down against the gear rim."

COGGING A MORTISE GEAR

"Knock out all the old cogs, but save the keys, many or all of which may be used with the new set of cogs. Fill the mortises with half-finished cogs, fitted and keyed in the best possible manner. Fill in between the square ends of the new cogs with pieces of wood, driven in snugly, so as not to fly out while the gear is in motion, but not driven tightly enough to 'spring' any of the cogs. A few shingles make a very good and convenient filling. Push in a shingle from each side, until they stay in place. Fill all the spaces in this manner, then go again over all the shingles and drive them all alike until they will stay in place, after which saw off the ends of the shingles and chisel them down with the ends of the new cogs."

"Next, rig up a 'fence,' same as wood turners use, then start the gear going, and turn the ends and edges of the new cogs smooth and true. Better not use regular chisels on this turning job. Grind the tang of 16 or 18-inch file into chisel shape and it will be found just the tool for turning down the filled gear."

"Place the large templet against the gear rim at the 'high' mark, then turn down the face of the gear until it comes even with the templet places as above directed. Do the same on the inside, using the small templet. Be sure to locate the 'pitch line' and to mark it permanently on the edges of the cogs by means of a shaped awl."

"With a sharp center punch, mark on the pitch line, at the high point, the center of one tooth, square up and over the end of this tooth, running the center line exactly toward the center of the gear shaft, then square down on the small end of the tooth or cog, and make another punch mark where the squared down line crosses the pitch circle or line."

"Remove the shingle filling, and with a well sharpened pair of dividers, step around the gear, both inside and outside, on the pitch circle until the dividers have been so accurately adjusted that they will step around the gear and come out exactly where they were started from."

CHECK GRAIN PRICE AT END OF FISCAL YEAR

On June 30, the Department of Agriculture announced that the general index of farm prices this June was 15 points higher than a year ago, but three points below the figure for May.

The grain price index went down eight points, cottonseed four points, vegetables 13 points, and meat animals one point. Total stocks of old corn are considerably below those of last year and there is a strong feeding demand, but these price-strengthening factors have been offset by the good condition and progress of the 1928 corn crop.

THE 236,000 bushel export of barley from the United States during the week ended June 2 was one of the heaviest since December.

NEWS LETTERS

LOUISVILLE

A. W. WILLIAMS - CORRESPONDENT

SUCH wheat as there is in Kentucky and southern Indiana this year is quite late on account of a backward season, while threshing has also been delayed by abnormally rainy weather, and downpours have been so vicious that there has probably been damage in shock to such wheat as was cut. Most of the crop was plowed under and acreage replanted to oats and other lines, when it was learned that winter kill in January was too severe to warrant trying to cut and thresh frozen out crops.

As a result of the heavy spring oats planting there will be considerable production of oats. Wheat losses were so severe that farmers even lost their seed wheat, and are now planning to pool their buying in purchasing car lots of seed wheat from the Northwest for delivery into various communities of the state. Seed jobbers who have not handled seed wheat in years plan to handle it this fall, and many retailers will also handle it. As a rule the seed trade handles very little wheat, as farmers trade among themselves or with country elevators in securing their requirements.

All grass crops were damaged. The Kentucky Bluegrass crop is the shortest on record, and estimates put it at between 50,000 and 100,000 bushels of raw, or cured, but uncleaned seed. The western crop, produced in Iowa and Missouri principally, is about as poor, whereas the two districts generally produce 1,000,000 bushels of raw seed if not more each year. A normal crop in Kentucky is a half million bushels, and as much as a million and a half bushels has been produced. Last year the Kentucky crop was only about 100,000 bushels and the West had a million bushels or more. The central Kentucky cleaners have large reserve supplies from previous crops, and the failures of the crops this year will enable them to reduce these reserves profitably. Opening prices in car lots have been made at 27 cents per pound for 21 pound seed; 26 cents for 19 pound; and 25 cents for 17 pound. The Orchard Grass crop in Kentucky is also quite short. It has been cut, but very little has been threshed as yet.

Kentucky farmers managed to get in a very good corn as well as tobacco acreage. However, excessive rainfall, with central Kentucky soused with as much as six inches of rain in three hours, on June 29, resulted in heavy damage to crops. Hill-side farms have been badly washed, and low ground flooded. Western Kentucky and some parts of eastern Kentucky suffered heavy losses, farmers even losing their seed.

Elevator operators and country mills will not receive much wheat this year. Oats prospects are better. Such mills as run will have to go north and west for wheat. Local elevators right now are carrying very little grain, and public storage is not expected to run as heavy as in former years. The Kentucky Public Elevator Company reported less than 50,000 bushels of grain on hand. This is divided up about 11,000 of corn; 35,000 wheat; and 3,000 oats. Some wheat storage will come in shortly, as grain is purchased by mills and moved here from the West.

Claude F. McFarlan, 58 years of age, formerly operating a feed and grain business at Fourth and Central Avenue, at the entrance to the Churchill Downs racetrack, recently died at his home in Louisville following a short illness. He sold his business about six years ago to become a Deputy Circuit Court Clerk in Louisville. Mr. McFarlan was a noted ball player and had two brothers who also played in the major leagues. He was a native of St. Louis, came to Louisville as a boy and entered professional baseball about 1890, playing with the New York Giants, Louisville, Columbus, Macon, Evansville, New Orleans and Norfolk at

various times. He discovered the great Honus Wagner, who joined the Louisville club on McFarlan's tip to the owners, and later went to Pittsburgh when the Louisville club was transferred to that city. Wagner proved the greatest shortstop ever known, and Mr. McFarlan took full credit for digging him up.

Local handlers report a very fair demand for feed and hay, and some demand for corn. Straw is quite high, as it is scarce this season and will carry considerable freight on long hauls, as there is very little local stock.

Ed Scherer, Bingham, Hewett Grain Company, reported that business was a little better than it had been, there being a fair corn demand, but oats and wheat are slow.

H. B. Hewett, for a number of years connected with the Bingham, Hewett Grain Company, Louisville, has recently left that organization, of which he was traffic manager, to go with the First National Bank and Kentucky Title Trust Company, as manager of their insurance division.

Oscar Fenley, president of the Kentucky Public Elevator Company, Louisville, is leaving on July 10 for Wequetonsing, Mich., where he plans to spend the balance of the summer.

A mass meeting of wheat-growing farmers was recently held at Lexington, Ky., to discuss plans for pooling their wheat purchases this fall and buying in car lots out of the Northwest, it being figured that considerable money can be saved in this way.

INDIANAPOLIS

H. M. RUDEAUX - CORRESPONDENT

DURING June, Indiana was subjected to almost one-quarter of the amount of rain that it averages per year, according to figures announced by the Government Weather Bureau, revealing that during the month 9.91 inches of rain fell. The average yearly rainfall in the state has been from 35 to 37 inches. This makes June of 1928 one of the wettest Junes in the history of the state, having rained 20 out of 30 days in the month. Hoosier farmers as a whole are interested in seeing more sunshine, in order to plow their corn. Many fields are so foul that they contain more weeds and grass than corn. Unless sunshine dries the ground in the next few days so that farmers may cultivate, many of the fields will become so foul that they can never be plowed. There are some reports of corn turning yellow, caused from the continued wetness and lack of cultivation. Many farmers are wading through the wet fields cutting what weeds they can with hoes. Under ordinary conditions, corn is laid-by before harvest, but when the sun starts to shine there will be foul fields to plow and hay and oats to harvest all at the same time. In some sections of the state the fields look fine, and free from weeds and grass, especially where farmers worked between showers, but as a whole it will require a week of sunshine to give farmers an opportunity to cultivate the fields.

Oats look fine in spite of the excess rainfall, but are lodging on account of the severe winds, and in some instances are flattened to the earth. Should extreme heat follow the wet period the damage to the oat crop would be enormous. There will be a new condition to contend with when oats are harvested, especially where they have been planted in turned-under wheat fields. Many of these fields are showing one-fourth wheat, and will produce wheat mixed oats, which will be fit for feed only or grinding purposes.

Receipts of corn to Indianapolis from Illinois points have been fairly liberal during the month, and of better quality. Little interest on part of the heavy buyer, however, has relieved shippers of

much interest and caused arrivals to fall off considerable. There are some inquiries from country points and many of the shipments are being sent to interior points. Old oats have narrowed down, with little interest and poor demand. Little interest is being displayed in futures of new oats.

Reports coming from some parts of the state indicate more wheat than was at first anticipated and is said to be of excellent quality. Some of the consignment houses have been advised of early arrivals of the new crop.

Edw. K. Shepperd, manager of the Cleveland Milling & Grain Company, is spending his vacation at Lake Wawasee fishing. Grain men of this market have requested Mr. Shepperd to cease sending them fish, as many of the boys are fed up on fish since Shepperd has been at the lakes. It was suggested, however, that the local Grain & Hay Club celebrate by having a fish fry, and word to that effect has been forwarded by the secretary of the association. All kinds and sizes of fish, including unknown varieties, have been received by many of the boys of the grain trade. So numerous have been the arrivals of boxes of iced fish that the sixth floor of the Board of Trade Building has taken on a fishy odor.

Lester H. Rich of the Hayward-Rich Grain Company has just returned from his wedding trip, spent at Montreal, Canada. Mr. Rich was married June 14 to Miss Mary Cannon of Oak Park, Ind. Lester looks fine after a honeymoon spent in a wet country.

Bill Hayward of the Hayward-Rich Grain Company is spending the week-end with his mother at Champaign, Ill.

O. D. Kendrick of the Kendrick, Sloan Company reports hay of good quality, but rather scarce. Clover is very weedy, according to Mr. Kendrick, and Clover Mixed the same, much of which was frozen out. The acreage of good Timothy clean of weeds is very short.

The feed market is very quiet, although holding its own, according to dealers. Good pastures and continued wet weather has caused a lull, but prices are firm to higher.

ST. LOUIS

FAIRMOUNT - CORRESPONDENT

THE first car of new wheat of the 1928 crop was received here on June 23, 1928, and was consigned to Tighman A. Bryant, originating at Oklahoma and graded No. 1 Hard wheat, testing 60.7 pounds, 13.40 per cent moisture and 12.57 per cent protein and was sold at auction to the Marshall Hall Grain Corporation, at \$1.65.

The following transfers of membership were noted: J. J. Martin with the Continental Export Company, membership transferred from C. W. Lawless of Kansas City; George Lee Marche of the Marshall Hall Grain Corporation from J. R. Schmitt.

Much regret and sorrow was expressed by the members of the St. Louis Merchants' Exchange today when it became known that Wm. Teasdale Hill, president of the J. H. Teasdale Commission Company, passed from this life July 6 at Ashville, N. C. Mr. Hill had been sick for some time and while his death was not unexpected it came as a distinct shock to the membership who know him as "Friendly Billy Hill". He was one of the best liked members on the Exchange, he was always pleasant and very generous in all his actions and trades. His loss is much to be regretted. Mr. Hill was reputed to be very wealthy although the amount of his wealth at this time is not known. At one time it was said that he had accumulated over \$3,000,000 but had met with some losses since that period. Mr. Hill has been in business here

about 38 years. He resided in the St. Louis Country Club grounds and is survived by his wife, also by a niece, Mrs. Paul Winters of 5823 Cabany who was with him when he died, and a nephew, Mr. Wm. C. Engle, and a brother, Stanley Hill of Dallas, Texas. Funeral arrangements have not as yet been announced.

F. H. Effken, manager of the Farmers Lumber Company of Cook, Neb., was a visitor here on June 18. Mr. Effken ships considerable corn to this market.

Bert Collins, manager of the cash grain department of J. E. Bennett, severed his connections with this firm to accept a position as cash grain salesman with the Checkerboard Elevator Company of this city who have an office at 206 Merchants' Exchange. The Checkerboard Elevator Company is a subsidiary of the Ralston Purina Company.

Wm. Olehmeyer who was assistant to Mr. Collins of J. E. Bennett & Co., is now handling their cash grain. The manager of J. E. Bennett's St. Louis office is A. J. Rogers.

Fred E. Kiddle, secretary and treasurer of the Pioneer Flouring Mills Company, LaGrande Milling Company, Union Flouring Mill Company and Elgin Flouring Mill Company of Island City, Ore., was a visitor here on June 16. These mills are large shippers of White wheat to this terminal. Mr. Kiddle advised that he was a delegate to the Republican Convention at Kansas City and was on his way to Washington to confer with the candidate of the Republican party for President, Herbert Hoover.

William A. Dorgan of Paul Kuhn & Co., of Terre Haute, Ind., was a visitor here on June 12. Mr. Dorgan intimated that he may possibly open an office in this terminal. Mr. Dorgan is a thorough grain man and no doubt he would make a success of it here.

Vacation time has expired and the market is again fully represented by all its active grain members. George L. Kelly of Teasdale Commission Company, Paul C. Knowlton of the Knowlton Grain Company, Wm. S. Niergarth of the Marshall Hall Grain Corporation all left together about June 18 and are all back again in the harness. P. W. Pritchard of the Overland Grain Company, John O. Ballard of Ballard, Messmore Grain Company and several other members made a trip to the Far West attending a convention at Portland. They report conditions there very favorable with prospects of being able to work considerable wheat to this market.

MILWAUKEE

C. O. SKINROOD - CORRESPONDENT

MILWAUKEE grain men rubbed their eyes recently and began to have visions of the comeback of old days of booze, at least to the extent of stimulating the demand for malt and thus for the barley market. The big piece of news is that Pabst, the old time brewer, announced that he had obtained the rights to make a new malt tonic which will contain about 2 per cent of alcohol and some 12 per cent of solids. It seems that Fred Pabst thereby stole a march on the other brewers and got a Government right which most any brewer in the United States would have been glad to get.

At last reports Mr. Pabst declares that he can sell 100,000 barrels of the tonic annually and he believes it not at all impossible that he can dispose of 200,000 barrels annually even though the drug store man must charge 30 cents a bottle and even though it cannot be drunk on the premises. It must be quaffed at home, or at any rate not in the drug parlors.

And this explains the enthusiasm of the grain men for the coming reopening of the booze business. It looks like a big demand for malt and barley with train loads of the grand old tonic going out several times a day.

Ray S. Dahl and Paul E. Riebs have been chosen as new members of the Milwaukee Chamber of Commerce.

Irving C. Lyman, former grain trader here in Milwaukee, now located in Iowa, was back in the city for a few days during the holiday period. He reported that the Iowa corn crop promises to be simply immense, an abundance of heat and rain giving the ideal conditions for the growth of this crop. The hot weather, he stated, however is not so good for the grain just entering the filling stage,

as this is likely to force too fast a pace and thus prevent the grain from filling as thoroughly as it should.

Widespread bumper crops are also predicted by another traveler among Milwaukee grain men—P. P. Donahue, veteran grain trader of the Donahue-Stratton Grain Company. Mr. Donahue has been roaming around the wheat districts of the Southwest and he says the crop down there will be huge, probably the best wheat yields in many years. Milwaukee grain men are angling for wheat receipts from the Southwest and are making arrangements for a heavier movement than ever before when the new grain trade really gets into full swing.

Milwaukee grain traders are predicting another record breaking run of corn at the local market when the present crop is picked next fall. For the past season Milwaukee was able to set up high record receipts. The local grain men assert that without a doubt the corn yield will be far larger this year than in 1927, and that there is no doubt but that the profitable shipping returns of the trade to Milwaukee for this season will lead to similar and even larger shipments for the coming season.

Milwaukee has had another of its periodical fires in grain elevators—this time that of the J. M. Riebs Company. The elevator is located at Twenty-fourth Avenue and South Pierce Street in the Menomonee Valley. The loss was at first estimated as high as \$350,000 but later estimates were marked down to around \$150,000 after all the checking had been done. Several adjoining buildings were also endangered and also 75 loaded freight cars were close to the path of the fire. According to J. M. Riebs, the president of the concern, the elevator contained about 125,000 bushels of grain valued in the neighborhood of \$200,000. Much of the expensive elevator machinery was also badly damaged. The absence of any high wind accounted largely for the fact that the fire department was able to put it out when it did.

F. A. Benston, a watchman, who went into the elevator as soon as he saw signs of fire, was burned about the body and face. Because of the large building and the adjoining buildings in danger, a third alarm was turned in. Within a few minutes a roaring fire was leaping out hundreds of feet through the top. The roof collapsed shortly after the fire got under way. The fire was gotten under control in about one hour but it took several hours to finally quench the flames. The cause of the fire is not yet definitely known but it was believed to be spontaneous combustion of grain dust. The 75 loaded cars were speedily pulled out of the fire zone and these suffered only nominal damage.

Vice-president A. J. Riebs of the Riebs grain concern, reported that the elevator will be rebuilt immediately. The extent of the construction will depend on the reports of the construction engineers who are studying the problem.

There was nearly 100,000 bushels of corn in the building which was badly water soaked. This will be kiln dried at once to salvage as much of the contents of the elevator as possible.

Milwaukee shippers are very much exercised over a rate case by which it is proposed to take Milwaukee and other Wisconsin cities out of the Chicago rate zone in shipments from the Southwest. The new tariff is scheduled to go into effect on July 14. The shippers of Milwaukee and other cities like those of Racine, Kenosha and Zion City, Ill., are pooling their efforts to fight the change. Shippers of Milwaukee declare that the scheme is merely an opening wedge, as if the principle is established that Milwaukee rates must be higher than those to Chicago, they will be applied according to this theory all along the line.

The amount of grain in store in Milwaukee is remarkably light even for this season of the year. Practically the only grain that is on hand is that of corn with 1,252,000 bushels. Other lines of grain are stored in almost negligible amounts, thus helping to increase the demand which is shown for current receipts. The supply of wheat, for instance, is only a little over 8,000 bushels. Holdings of rye are just over 5,000 bushels. The barley storage is just a trifle larger with 11,000 bushels and the oats supply runs up to 72,000 bushels. Thus, all grain supplies combined outside of corn are only about 100,000 bushels. Seldom is the grain supply so low as it is at present except in the one field—corn.

Charles Manegold, an old time Milwaukee miller and a prominent business and civic leader who has for many years been a member of the Chamber of Commerce, is dead at the age of 76 at his summer home near Minocqua after an illness of only about a week from pneumonia. Born in 1851, Mr. Manegold was a lifelong resident of the city. He learned the miller's trade in a flour mill owned by his father who came to Milwaukee from Germany in 1848. Although Mr. Manegold was widely known as the president of the Milwaukee-Waukesha

Brewing Company, which he purchased in 1899, he was actively interested in the malting, flour and grain elevator business for many years. Mr. Manegold served on the city's first park board at a time when land was purchased for some of the largest parks of present day Milwaukee. He was an official of the Milwaukee Chamber of Commerce for about 20 years and he was intimate with the grain trade of the city. He was a member of the Milwaukee Art Institute and took part in many lines of civic work. He left two sons, Henry and William, and three daughters.

One of the most successful conventions of the three held in the life of the Central Feed Association was held at the Plankinton Hotel in Milwaukee with some 250 millers, feed manufacturers, jobbers and retailers in attendance. The association caters especially to the needs of the feed interests in five states—Wisconsin, Illinois, Minnesota, Michigan and Indiana.

At the final session of the convention Fred Kern of Sparta was elected president of the Central Retail Feed Association. Other officers chosen were Gus Reitman of Sullivan, Wis., vice-president. John Becker of Monroe was named treasurer and David K. Steenbergh of Milwaukee was again named secretary. J. L. Kleckner of Neillsville, the retiring president, D. W. McKecher of Wisconsin Rapids, Wis., and M. A. Joshel of Geneva, Ill., were named as the directors of the association for the ensuing term.

The Donahue & Stratton Company, grain dealers of Milwaukee, have purchased the steamer *Sturgeon Bay* and will turn it into a grain drier very shortly. The *Sturgeon Bay* takes its name from the Wisconsin port where it was built in 1918. For the last few years the ship has been at Buffalo after having been blown up on the beach there during a severe gale. Prior to that it was in charge of the naval reservists of that district and it is still painted in the navy war time colors of bluish gray. The vessel has been towed here and it will be converted as soon as possible into a grain drier. Water soaked and damp grain will be cleaned up with machinery placed on this ship.

Francis Duhne, Jr., grain broker who has his offices in the Chamber of Commerce Building, was injured seriously when his machine was struck by a hit and run driver who forced him to the curb as he was driving north along the lake shore to his summer home at Donges Bay. The other car was traveling along the wrong side of the street. Weakened by the loss of blood, he was promptly rushed by a passing driver to Columbia Hospital. While his condition was first reported as serious, it is fully expected he will recover.

KANSAS CITY

B. S. BROWN - CORRESPONDENT

THE deluge of wheat now being received on the Kansas City Board of Trade is generally expected by grain men here to break all previous records in the history of this market. Starting with combines as the predominating factor in rushing this movement the largest amount of wheat has been transported in the least time. Kansas City's 38 elevators having an aggregate capacity of 41,500,000 bushels will receive the hardest test that could confront the facilities of any market. On July 9 Kansas City received 1,500 cars of wheat representing more than 2,000,000 bushels, and with excellent demand the grain was snapped up by buyers almost as soon as it hit the trading floor. Freight cars are being unloaded and rushed back to the production centers for reloading. This record movement of wheat is being watched not only by the grain and milling industry, but by industry and commerce generally. Many factors must always be combined into a co-operative concrete system which for the last century has withstood the greatest test. The principal factor in this direction is the future market which showed unusual strength notwithstanding the phenomenal volume of hedging pressure. Kansas, Oklahoma, Texas, Colorado and New Mexico are the principal states now harvesting and shipping Hard Winter wheat to market. Widespread rains in this territory caused considerable apprehension regarding the inadvertent damage which would result to wheat with the excessive moisture coming at the critical turning period. But just before the harvest and while the grain stood ripe in the fields nature was the greatest benefactor in sending the hottest wave in this territory in many years. With the arrival of the deluge of new wheat the fears of farmers and grain men are wiped out, because the grain, with the exception of protein content,

is the best quality ever grown. Instead of high moisture the wheat is unusually dry, virtually all arrivals testing above 61 pounds to the bushel, and all grade No. 1. The heavy test on new wheat is the influence that caused the estimates of probable production to be increased. To the grower 61 pounds means 25 to 40 bushels to an acre. Regarding protein content early arrivals tested unusually low but with receipts now coming in from a much wider territory the protein average has shown a perceptible increase. The Kansas State Grain Inspection Department in figures released July 9, shows the gradual increase in the protein content. For instance, on July 4 the average was 11.89 per cent; July 5, 11.96 per cent; July 6, 12.05 per cent; July 7, 12.26 per cent, and on July 8 and 9 the average on 1,382 cars was 12.30 per cent. An unusual feature this year is the scarcity of tests between 12½ per cent and 15 per cent, most samples running from 12½ per cent down, and a large amount of wheat testing from 15 per cent upwards.

W. R. Scott, transportation commissioner of the Kansas City Exchange, is in Portland to attend the grain rate hearing which opened July 10. This grain investigation of freight rates on grain and grain products in the territory from Minneapolis to the Gulf, and from the Mississippi to the west coast, is attracting much interest and the decision on the case is expected to have a far-reaching effect on the grain and milling industries of the country.

According to an actual count made under the direction of some of the members of the Kansas City Board of Trade it was found that in 61-pound wheat there are 700,000 berries, and in 56-pound wheat there are 1,400,000 berries.

J. E. Wrenn has been appointed head of the Kansas City office of the Department of Commerce to succeed Brice M. Mace, Jr. Mr. Wrenn will arrive in Kansas City to take charge the middle of July. Mr. Wrenn made a survey of the situation here in June, and said that the Bureau of Foreign and Domestic Commerce plans to make the Kansas City and New York offices two of the most important branches of the Bureau.

C. W. Lonsdale, president of Simonds-Shields-Lonsdale Grain Company, and one of the 31 directors of the United States Chamber of Commerce, attended the meeting of the board in Washington June 21, 22 and 23. On his return Mr. Lonsdale reported that the board of directors felt that the coming year is going to be the best year for American industry since the World War. The Agricultural Committee of the board, with Mr. Lonsdale as chairman, is preparing a referendum vote to be submitted to all chambers of commerce throughout the country dealing with suggested measures for the correction of farm ills. It is expected that the referendum probably will be completed and ready for submittance by September 1.

Enrico Pozzani, of the firm of Fratelli Pozzani & Co., of Milan, Italy, was a visitor in Kansas City recently. Mr. Pozzani was studying market conditions and making plans to buy at least a million bushels of wheat. Mr. Pozzani believes that American wheat is the best in the world and that Kansas wheat is especially good. He stated that Italy would import more than 60,000,000 bushels of wheat this year.

James Ford Bell, president of Washburn Crosby, was a visitor in Kansas City during the G. O. P. convention. Mr. Bell is a close friend of Mr. Hoover and was in charge of flour and bread distribution during the war.

Members of the Kansas City Board of Trade contributed \$1,098 to a fund for the family of a traffic patrolman who was killed here last month by bank bandits. "Happy" Smith, the officer, was one of Kansas City's most popular patrolmen, and there were few people in the city who did not have a smiling acquaintance with him. A fund was started immediately for the wife and five children, and the Board of Trade members contributed generously. The fund has reached over \$30,000.

Thad L. Hoffman, president of the Kansas Flour Mills Company, gave his third annual golf party for members of the Kansas City Board of Trade on June 30. Hoffdale, Mr. Hoffman's own golf course, was the scene of the party, with more than 200 men attending. A dinner in the evening took the form of a celebration of the record receipts of grain on the Kansas City market this year.

A special lime train toured Cass County, Mo., on July 9, for the purpose of educating the farmers to the value of fertilizing Alfalfa and other legume soil with limestone. A meeting was held at Belton with A. J. Meyer, director of the Missouri University extension service of Columbia, Mo., as the principal speaker. Mr. Meyer talked on "The Ex-

tension Service and the Missouri Farmer." Other speakers were W. A. Cochel, editor of the weekly Kansas City *Star*, who talked on "Lime and Livestock," and P. F. Schowengerdt, director of the agricultural department of the Wabash Railroad, who discussed "Soil Fertility and Agricultural Prosperity."

Raymond E. Larson has been elected to membership on the Kansas City Exchange on transfer from F. W. Davidson, formerly with the Norris Grain Company. Mr. Larson is with Washburn Crosby and will represent them on the floor. Mr. Davidson is now operating the Davidson Brokerage & Commission Company of Topeka, Kan.

Following a change in the general management of the Farmers Co-operative Commission Company, Harry C. Morton, the new general manager and vice-president of the organization, will represent the company on the floor in the place of Everett Hardgrove, former general manager.



AN INTERESTING recent happening on this market came in the transfer of the Board of Trade membership of E. N. Bradley to E. H. Schumacher. It signalized the retirement of Mr. Bradley, manager and vice-president of the Globe Elevator Company here after a service of 37 years with that company, of which 34 years was at Duluth. Cecil C. Blair, secretary of the company, who has been connected with it for 25 years, of which nine years was on this market, has been promoted to the vacancy created by Mr. Bradley's retirement. Mr. Bradley is now in Sacramento, Calif., where he has some ranch interests. He proposes to reside there for a time. E. H. Schumacher, recently elected a member of the Board of Trade, is a son of "Joe" Schumacher of the Monarch Elevator here. He was given a hearty reception upon his promotion from the Globe office to the trading floor.

J. P. Mitchell of W. C. Mitchell & Co. has been transferred to his firm's Minneapolis house, and G. M. Rockwell, recently elected a member of the Duluth Board of Trade, has taken his place on the trading floor on this market.

Stocks of grain in elevators at Duluth and Superior are still heavy, aggregating 11,932,782 bushels as on July 9, but some reductions were effected during the last month. Of the total, 5,725,757 bushels was Spring wheat and 3,993,755 bushels was Durum wheat.

Durum specialists on this market are banking heavily upon handling a bumper crop of it next fall. The crop outlook over an area of country extending from the Red River Valley in Minnesota to Minot, N. D., is said to indicate a yield of between 80,000,000 and 90,000,000 bushels of Durum wheat. The Spring wheat outlook has also picked up according to reports collected by elevator houses on this market. While the crop has still such vicissitudes as drought and black rust to pass through between now and the harvest, operators regarded those dangers as having been minimized by the recent liberal rainfalls over the West. The disaster that might be brought about through a heated spell with muggy weather is not being lost sight of however, but the crowd is hoping for the best.

Some of the specialists in the rye market here are flattering themselves upon their success in getting out of their holdings during the late winter and spring months while the going was good. As compared with a month ago quotations in rye futures on this market were off from 13 to 17 cents as of July 9. That was attributed to a drying up in export demand on a realization by foreigners that practically all the available supplies of rye are being held at the seaboard and that stocks in country elevators over the Northwest have been cleaned up. Members of the rye crowd on this market are flattering themselves upon having put through heavy trades in that grain at times at profitable prices when the sharp upturns were recorded. Their one regret is that this season's rye crop over the Northwest will be light.

The slow demand for space has brought about a weakening in the Lake freight rate market on grain. After being held at 3 cents per bushel from Duluth for Buffalo at the opening of the season, space for Spring wheat was offered at 2½ cents on July 9, and it was claimed that vesselmen are ready to grab at a bid of 2 cents for full cargoes as they

are anxious to keep their steamers in commission. Absolutely nothing is doing in the way of Georgian Bay rates from here and the rate to Montreal has been cut to 8 cents.

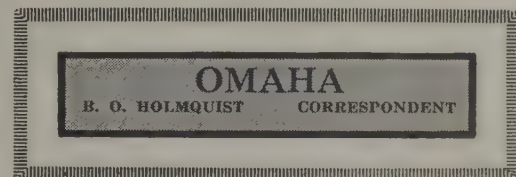
With the additional 3,000,000 bushels facilities, afforded by the going into commission of the new storage bins of the Great Northern Elevator system this fall and the additions to the Cargill and Itasca Elevator systems in full running order, authorities here are of the opinion that the elevator system at Duluth and Superior should be able to take care of any grain movement likely to develop over the Northwest for some time to come.

A fight for the handling of a part of the Montana wheat crop which heretofore has been exported through Pacific Coast points was made in behalf of Duluth by F. S. Keiser, traffic commissioner of the Duluth Chamber of Commerce, in an Interstate Commerce Commission hearing held recently at Seattle. C. T. Vandenover represented Minneapolis and also made a bid for what is termed a more equitable rate schedule.

At present there is a 7-cent per 100 rate in favor of grain traveling west for export. Middle West millers are demanding that the eastern rate be made equivalent to that of the West and it is thought that their demands will be granted in view of statements made by railroad representative that they are willing to abolish the preferential tariff. The grain rate revision would be of increasing value to the Duluth market, in the opinion of grain men here, due to the rapidly mounting productions of the Montana wheat areas.

Inquiry for feeds and coarse grains on this market is better than at this time last year, according to R. M. White of the White Grain Company, Duluth. He predicted a lower market in hay as a result of the promise for heavy yields over this territory, following the recent copious rains. Where pasturages were dried up and hay promised to be less than half a crop a month ago, conditions have been completely reversed. Mr. White is looking forward to larger carlot shipments of coarse grains to the dairying interests over this territory during the coming winter.

The movement of grain at this market for the present crop year from August 1, last, continues to show heavy gains. Receipts aggregated 174,994,769 bushels up to July 9 as against 80,220,444 bushels last year. Of that wheat accounted for 116,530,762 bushels against 51,063,771 bushels last year; corn, 491,988 bushels against 125,317 bushels; oats, 1,076,807 bushels against 2,009,649 bushels; barley, 22,431,424 bushels against 6,081,712 bushels; rye, 24,711,906 bushels against 13,222,813 bushels; and flax, 9,751,882 bushels against 7,717,182 bushels.



THE first car of 1928 Nebraska wheat arrived in this market Monday, June 9, from Holmesville, Neb., shipped to the Vanderslice-Lynds Grain Company. This wheat graded No. 1 Hard, test 62.7 pounds, 11.03 per cent protein, and was of excellent quality. As it had been purchased to arrive, it was not offered for sale on the market. Another car of the same grade, testing 11.07 per cent protein was in the following day to the Butler-Weish Grain Company and sold at \$1.28. Wheat harvest is in full swing in Nebraska and by next week a good volume of wheat should be pouring into this market. Country dealers report, however, that the Nebraska farmer is not going to be anxious to market wheat at present prices and that the harvest run will not be burdensome.

H. R. Caldwell, formerly with the Trans-Mississippi Grain Company, is now representing the Kansas Flour Mills as their wheat buyer in this market. D. P. Moore, his predecessor, has accepted a position with the Valler-Spies Milling Company of St. Louis as head of their grain department. Mr. Caldwell's successor as manager of the consignment department for the Trans-Mississippi Company has not yet been announced.

Harvesting of oats has commenced in this state but it is the opinion of most grain dealers that farmers will sell very few oats at harvest time. Prices are unsatisfactory and farmers are not so badly in need of money that they will sacrifice their crops for cash at this time. Furthermore, on account of last year's light crop, farm granaries are empty and will be well filled before any oats are marketed. Also, corn is selling at rather high

prices at country points and feeders will use plenty of oats before they will ship out any. The oats crop will be good in practically all sections of this state and western Iowa, according to recent reports.

Recently returned from vacations in different sections of the United States are M. I. Dolphin of the Dolphin-Jones Grain Company who has been fishing in Wisconsin; J. A. Cole of Nye & Jenks, who claims to have caught great numbers of Minnesota pike; C. W. Adams of the Blackhawk Grain Company, from Denver; J. H. Conrad, from the Scottsbluff territory in western Nebraska; J. W. Redick, who spent a month, mostly on horseback, on his brother's ranch in Wyoming; R. E. Miller of the Updike Grain Corporation, who visited his parents at Surprise, Neb. E. A. Lucke of the Lucke-Gibbs Grain Company, who motored to California with his family, will be gone the remainder of this month.

J. C. Edwards, formerly assistant manager of the consignment department of the Updike Grain Corporation, has been appointed manager since the resignation of Mr. Bell, who has started a commission business in partnership with Jas. Trimble.

Rapid progress is being made on the new addition of 260,000 bushels of storage space to the Nebraska Consolidated Mills. The Illinois Central's new elevator, which is to be operated by the Crowell Elevator Company, will be started in the very near future, to be in readiness for the handling of the 1928 corn crop. The million bushel addition to the Northwestern Elevator in Council Bluffs is practically completed, and work is going forward on the 500,000-bushel addition to the C. B. & Q. Elevator, also in Council Bluffs.

BUFFALO

ELMER M. HILL CORRESPONDENT

GRAIN receipts at terminal elevators during the past month have shown a marked decline. There has been a steady movement of grain down the Great Lakes, but after the spurt at the opening of navigation, shipments from both the American and Canadian heads of the lakes have eased off considerably and for several weeks the average daily receipts at Buffalo has been below the 1,000,000-bushel mark. Shipments of grain from Buffalo to the Atlantic Seaboard by rail also have been comparatively light, but a large part of the grain being received from lake steamers is being sent forward by rail and the New York State Barge Canal. The movement of grain from Buffalo to Montreal via the Welland Ship Canal has been normal this season and it is predicted that the boats in the Welland Canal trade will be kept busy throughout the season.

Reports have been current in the Great Lakes grain trade during the past month that negotiations are under way on the part of almost a score of independent boat owners to consolidate into one large corporation which would virtually control the steamers engaged in the grain trade on the Great Lakes. Companies mentioned in these merger reports have refused to comment upon the possibilities of a consolidation but it is felt that in view of the action taken by the United States Government earlier in the spring which thwarts any move on the part of various companies to agree on late opening dates and minimum carrying charges so as to place themselves in a position to dictate terms to grain shippers, there may be some basis for this merger talk.

The package freighter *Patrick E. Crowley* of the Great Lakes Transit Corporation, arrived earlier this month with 6,112 tons of freight, the largest amount of tonnage handled by a vessel of this class in the last two years. The *Crowley's* cargo included 120,000 bushels of wheat.

Construction work will start at once on a new feed manufacturing plant in Buffalo for the McMillen Company, of Fort Wayne, Ind. R. V. Craig has resigned from the Buffalo Corn Exchange to become an executive of the company whose plant will be built at the foot of Smith Street on the Lackawanna and Nickel Plate Railroads. The new plant will embody all the latest equipment for the production of cattle, dairy and poultry feeds and will be of a design particularly adapted to the handling of both straight car and mixed car business. It is expected the new plan will be completed and ready for operation by January 1, 1929. The McMillen Company has been engaged in this business for many years in Fort Wayne, Ind. Recently the company purchased a plant in St. Louis to han-

dle its southern business and the new Buffalo plant will handle the eastern business. D. W. McMillen is president of the company. Harry E. Burber of the Buffalo Chamber of Commerce was in direct charge of the negotiations which resulted in bringing this new industry to Buffalo.

The Hecker H-O Company has filed plans for the erection of a new warehouse at 50 Marvin Street in Buffalo. The new structure will be a six-story addition to the present plant located in Fulton Street and will cost approximately \$125,000. The warehouse will be used for storage purposes only and will be erected by the A. E. Baxter Engineering Company, which also prepared the plans.

NEW YORK

C. K. TRAFTON - - CORRESPONDENT

THE president and Board of Managers of the New York Produce Exchange have announced the appointment of the following committees to serve during the ensuing year: Grain—Albert C. Field, chairman, James J. O'Donohoe, Walter Trappe, W. F. Rosar, Harry G. Gere. Carlot Grain—Joseph A. Abel Jr., chairman, Edwin A. Barnes, James H. Bowne, R. J. Kaiser, Thos. M. Blake. Delivery of Warehouse Grain—William C. Mott, chairman, Charles A. Robinson, Thos. W. Kane. Grain Futures—Axel Hansen, chairman, Robt. F. Straub, C. W. Andrus, Fred H. Telle, W. F. Rosar, H. B. Watson, F. Leval. Grain Commission Rules—Fred H. Teller, chairman, James H. Bowne, Chas. C. Rubins, Carl F. Andrus. Hay and Straw—Frank S. Voorhees, chairman, Thos. M. Blake, Harry G. Gere, Franklin L. Lewi, Chas. Schaefer. Seeds—Marshall H. Duryea, chairman, Ernst Wehncke, O. W. F. Randolph.

Robert B. Gentles, for many years an active figure in the grain trade in New York and other markets, has announced that he has gone into the grain brokerage business on his own account with offices at E-7, New York Produce Exchange Building.

According to an announcement, Kurt J. Bartsch has resigned from the Bunge-North American Grain Corporation and will no longer represent that corporation on the floor. Mr. Bartsch was elected to membership in the Exchange at the late June meeting of the Board of Managers.

Edward P. McKenna of McKenna & Strasser, grain commission merchants on the Chicago Board of Trade, paid a brief visit late in June to members of the grain trade on the New York Produce Exchange.

John E. Hamann of the Grain Growers Export Company, Inc., was admitted to membership in the New York Produce Exchange.

An announcement by the Grain Growers Export Company, Inc., stated that George S. Chilton was no longer connected with that company and had ceased to represent them on the Exchange floor.

Charles E. Grim of Charles E. Grim & Co., Inc., export commission and securities' brokers, who resigned his regular membership in the New York Produce Exchange, has applied for admission to associate membership.

The Committee on Steamship Affairs of the New York Produce Exchange has been at work for a considerable time drafting a revised Charter Party and Bill of Lading for use in grain chartering because of the many complaints regarding the old form. They recently completed their draft of the new form and posted a copy on the floor, with the request that all suggestions for modification be submitted to them in writing so that they can study them before the new form has been placed before the trade.

Cathcart & Co., Ltd., of Winnipeg, announce that Charles C. Rubins, an old member of the grain trade here, will hereafter act as their representative on the Exchange floor.

Trading in tickets of membership in the New York Produce Exchange was almost at a standstill late in June, it being evident that practically all interested parties were awaiting the issuance of the report of the special committee having in charge the establishment of a market for trading in "over-the-counter" securities. Early in July it became apparent that some holders had become tired of waiting as a little more selling pressure developed, resulting in a sale of \$14,500, or about \$5,000 below the price of the last previous sale.

Almost immediately thereafter considerable gossip was in circulation regarding the favorable outlook for the inauguration of trading. This served to stimulate the demand and resulted in sales of two tickets at \$16,000. Shortly afterwards \$16,250 was bid with sellers at \$16,500. Before long the latter price was paid and it was claimed that sales had been made at as high as \$16,750 and \$17,000. Trading in associate memberships was resumed early in July with two sales at \$10,000, and at this writing another sale is reported at \$11,500.

As an indication of the general expectation that trading in "over-the-counter" securities will be inaugurated on the New York Produce Exchange in the near future the following members or representatives of investment and brokerage houses dealing in such securities have been elected to membership: Alexander Diamond of Sailing W. Baruch & Co., Myron I. Borg, Jr. of Hamerslag, Borg & Co., Murray Simons of Simons, Marsh & Co., Max W. Amberg of Hyman & Co., David B. Bandler, and Otto J. Horn.

Although the official report of the special committee appointed to consider the establishment of an "Over-the-counter" securities market on the New York Produce Exchange had not been released for publication at this writing, it is stated that the work has been completed and that the report has been forwarded to the office of the New York State Attorney-General for his approval. It was asserted unofficially that Harrison S. Martin, formerly assistant secretary of the New York Stock Exchange, who had been retained to take charge of the work had embraced in his report extremely complimentary comments regarding the high standing of the Produce Exchange as offering to traders in such securities assurance of adequate safe-guards for their operations. Shortly after the report was sent to Albany, a number of New York newspapers published comprehensive stories regarding the attitude of the Attorney-General's office with reference to trading in unlisted securities. It was pointed out by the State Bureau of Securities, Department of Law, that securities aggregating upwards of \$1,000,000 sold "over-the-counter" to the investing public since the war have defaulted or become absolutely worthless. Revelation of this condition of affairs by the State Prosecutor of Frauds in stocks and bonds is based upon an investigation of the activities of the "over-the-counter" market, the ground-work of which has just been completed. Simultaneously with the publication of the primary findings of this probe, revealing a condition characterized by Assistant Attorney-General Shea as "extremely dangerous" came the announcement that Harrison S. Martin is co-operating with the State's Bureau of Securities. The aim of this collaboration is to render available for the state a possible means of curbing abuses disclosed in the inquiry into the "over-the-counter" market.

GRAIN NEWS FROM BOSTON

By L. C. BREED

Edward F. Clapham, for many years in the grain business in Boston, recently retired from business here and in future will be with his son in New York. He was a member of the firm of Clapham & Maynard.

The W. P. Whittemore Company, dealers in grain, feed, etc., at Rosindale, Mass., is planning to add coal and building materials to its business.

Stanley E. Newton of the Sennot Grain Company has gone on a trip to Canada, during which he intends to pay a visit to the grain fields.

A. S. MacDonald, grain, Boston, recently made a vacation trip to Nova Scotia.

Prentiss, Brooks & Co., Inc., Holyoke, Mass., recently became incorporated. The capital is 1,000 shares no par stock. The company will continue to handle grain and feed. The incorporators are William L. Morse, Wendall H. Bradford and Lawrence G. Brooks, all of Holyoke.

Edmund A. Garland of J. B. Garland & Son, Worcester, Mass., died June 25 at his residence in that city. Mr. Garland had been identified with the grain business for more than 30 years.

Arthur S. Heathfield, a former member of the Boston Chamber of Commerce, died at his home in New Boston, N. H., June 25.

The eleventh annual convention of the National Foreign Trade Association was held at Boston June 4, 5 and 6.

Several members of the flour trade have been appointed to serve on a committee to assist in the preparations that are being made for the Grain

Dealers National Association convention. The duties of the committee at present are mainly to obtain subscriptions from the flour trade to the fund for the entertainment of the members of the National Association.

Frank W. Wise, treasurer of the Boston Grain and Flour Exchange, recently went to Nova Scotia on a vacation fishing trip. His son, William M. Wise, recently made a business trip to the west.

M. D. Leonard, president of the Park & Pollard Company, feedstuffs manufacturers, has returned from a trip to Florida. Carl J. B. Currie, sales manager, left Boston recently for a six weeks' trip to the Pacific Coast. Andrew W. Benner is a recent addition to the company's sales force.

The recent outing of the Boston Grain and Flour Exchange at Pemberton Inn, Hull, proved to be a very successful affair. Field sports were a feature and a clam bake was served. The Alhambra Band was in attendance to furnish music on the boat trip to Hull. The baseball game of 10 innings was declared a tie with a score of 4 to 4 between the grain men and the curb men. A fat men's race and a three-legged race were also put over.

The demand for corn and oats from the New England dealers reached the usual proportions of business for the month of June. The sale of grain locally is much smaller than was the case in past years, owing to the large number of automobiles and motor trucks that are now used. Feedstuffs for shipment to country points have been in fair demand. The offerings are light, because mills are not running full and are sold ahead for prompt shipment. Freer offerings of Canadian wheat feeds keep prices at lower figures than have ruled during the spring. Prices for forward shipment are about the same as for spot offerings, and it is not expected that prices will go lower. Chicken wheat is selling well as usual for the reason that chickens are fed all the year round except in case of barnyard fowl.

At Boston the market for hay is seasonably quiet and prices weak owing to ample supplies. Receipts for the month of June were 226 cars. Rye straw, seven cars.

The stocks of grain in regular elevators at Boston as of June 30, were as follows: Wheat, 164,178 bushels; oats, 4,500 bushels; rye, 1,147 bushels.

The receipts of grain at Boston during the month of June, as tabulated by the Boston Grain and Flour Exchange, were as follows: Wheat, 28,750 bushels; corn, 1,100 bushels; oats, 117,525 bushels; rye, 17,200 bushels; barley, 1,250 bushels; malt, 2,075 bushels; mill feed, 198 tons; cornmeal, 509 barrels; oatmeal, 9,245 cases and 1,993 sacks.

During the month of June, 16,000 bushels of wheat were shipped to Rotterdam and 16,759 bushels to Hamburg; to London, 59,781 bushels of oats; to Hamburg, 32,852 bushels rye; and to Bremen, 17,143 bushels rye. To Hamburg, 40,000 bushels barley and to Bremen, 79,671 bushels barley. To Hull, 200 sacks oatmeal.

Among the visitors to the Exchange during the month of June, outside of New England, were the following: F. A. Sauer, New York; H. F. Schell, Lancaster, Pa.; O. W. Olson, Chicago, Ill.; H. A. Ramsey, Chicago, Ill.; J. A. Crawford and J. A. Crawford, Jr., Walton, N. Y.; A. H. Allen, Portland, Ore.; F. J. Seidl, Minneapolis, Minn.; A. S. Comeau, Montreal, P. Q.; Ray Merrigan, Memphis, Tenn.; W. V. Hamilton, Caledonia, N. Y.; J. L. Sutherland, Richmond, Va.; A. W. Beers, Miami, Fla.; Charles A. Dix, Troy, N. Y.; John Blacoonlee, Cambridge, N. Y.; Harold J. Phillips, Hulburtown, N. Y.; C. S. Woolman, Chicago, Ill.; Thomas Crowe, Chicago, Ill.

POPULARITY OF "COMBINE" GROWS

The popularity of the combine, harvester and thresher, is growing in the states of Kansas, Oklahoma and Texas. Estimates compiled by the Trans-Missouri Shippers Advisory Board show that a total of 32,501 machines will be available for wheat harvesting this season, an increase of more than 11,000 over the number available for the last harvest.

There is a total of 19,082 in Kansas alone. On January 1 of this year, there were 12,782 combines in the state compared with 8,276 in January 1927. In 1923 there were 2,796. An increase of 5,583 is reported in Oklahoma over January 1, 1923, with a total of 8,772 for that state. In the state of Texas, it is estimated that 4,647 machines will do their

part in harvesting and threshing this year's supply of wheat. This is an increase of 1,757 since January 1927.

The increased use of the machine has decreased the necessity of importing harvest hands to a great extent. Kansas will need about 18,000 outside harvest hands, whereas Oklahoma and Texas will need none.

JUNE RECEIPTS AND SHIPMENTS

BALTIMORE—Reported by Jas. B. Hessong, Secretary of the Chamber of Commerce.

	Receipts		Shipments	
	1928	1927	1928	1927
Wheat, bus.	412,059	515,109	612,471	797,565
Corn, bus.	68,919	55,244	4,664	.....
Oats, bus.	101,633	130,209	69,469	.....
Barley, bus.	826,720	.....	1,010,041	.....
Rye, bus.	61,515	7,446	85,593	4,741
Malt, bus.	19,723	23,921	.....	1,324
Flax Seed, lbs.	1,396	1,304	.....	.....
Straw, tons.	9	66	.....	.....
Hay, tons.	585	890	.....	.....
Flour, bbls.	71,123	104,255	5,393	35,815

CHICAGO—Reported by F. H. Clutton, Secretary of the Board of Trade.

	Receipts		Shipments	
	1928	1927	1928	1927
Wheat, bus.	821,000	1,746,000	744,000	1,950,000
Corn, bus.	5,925,000	7,551,000	4,895,000	3,969,000
Oats, bus.	2,333,000	3,616,000	2,399,000	1,788,000
Barley, bus.	317,000	373,000	47,000	87,000
Rye, bus.	122,000	159,000	9,000	381,000
Timothy Seed, lbs.	1,039,000	779,000	413,000	134,000
Clover Seed, lbs.	40,000	.....	66,000	74,000
Other Grass Seed, lbs.	418,000	163,000	509,000	503,000
Flax Seed, bus.	158,000	177,000	.....	1,000
Hay, tons.	9,590	9,854	910	695
Flour, bbls.	881,000	969,000	520,000	664,000

CINCINNATI—Reported by J. A. Hallam, Chief Inspector, of the Board of Trade, Inc.

	Receipts		Shipments	
	1928	1927	1928	1927
Wheat, bus.	49,000	210,000	56,000	117,600
Shelled Corn, bus.	344,600	457,800	351,400	421,400
Oats, bus.	174,000	166,000	118,000	126,000
Barley, bus.	3,200	1,600	.....	.....
Rye, bus.	1,400	4,200	.....	2,800
Grain Sorghums, bus.	1,400	1,400	.....	.....
Ear Corn, bus.	.....	5,000	.....	.....
Feed, tons	150	240	.....	.....
Hay, tons.	5,720	4,653	.....	.....

DULUTH—Reported by Chas. F. MacDonald, Secretary of the Board of Trade.

	Receipts		Shipments	
	1928	1927	1928	1927
Wheat, bus.	3,667,346	3,209,637	5,985,986	4,625,326
Corn, bus.	8,938	15,193	144,790	8,437
Oats, bus.	109,576	20,687	151,830	1,429,237
Barley, bus.	529,419	503,446	496,041	378,340
Rye, bus.	253,438	795,570	357,655	1,233,292
Flax Seed, bus.	156,078	216,063	222,014	137,635
Flour, bbls.	477,200	433,295	599,550	489,390

PORT WILLIAM, ONT.—Reported by E. A. Ursell, Statistician of the Board of Grain Commissioners for Canada.

	Receipts		Shipments	
	1928	1927	1928	1927
Wheat, bus.	20,146,114	7,344,073	26,426,765	10,174,084
Corn, bus.	.....	6,986	.....	6,986
Oats, bus.	4,104,035	97,489	5,852,743	823,652
Barley, bus.	1,283,302	367,157	2,492,916	852,749
Rye, bus.	693,417	106,106	1,160,392	115,402
Flax Seed, bus.	269,153	94,578	443,491	498,231
Mixed Grain, bus.	83,271	10,312	58,348	39,372

INDIANAPOLIS—Reported by Wm. H. Howard, Secretary of the Board of Trade.

	Receipts		Shipments	
	1928	1927	1928	1927
Wheat, bus.	127,500	202,500	51,000	169,500
Corn, bus.	1,291,000	1,152,000	1,696,000	984,000
Oats, bus.	324,000	434,000	262,000	556,000

KANSAS CITY—Reported by W. R. Scott, Secretary of the Board of Trade.

	Receipts		Shipments	
	1928	1927	1928	1927
Wheat, bus.	1,871,870	3,677,960	1,695,980	4,096,950
Corn, bus.	2,265,000	2,668,500	4,003,500	961,500
Oats, bus.	188,000	176,000	54,000	154,000
Barley, bus.	43,200	27,000	30,400	11,200
Rye, bus.	4,500	25,500	4,500	16,500
Bran & Shorts, tons	5,080	3,620	16,240	13,220
Kaffir Milo, Corn, bus.	343,200	240,900	335,000	332,000
Hay, tons	15,408	12,852	5,760	8,148
Flour, bbls.	62,050	55,575	588,725	681,850

LOS ANGELES—Reported by M. S. Thiebaud, Secretary of the Grain Exchange.

	Receipts		Shipments	
	1928	1927	1928	1927
Wheat, carloads	270	349	.....	.....
Corn, carloads	235	228	.....	.....
Oats, carloads	32	26	.....	.....
Barley, carloads	217	30	.....	.....
Milo, carloads	24	30	.....	.....
Kaffir Corn, carloads	.....	45	.....	.....
Bran, carloads	90	118	.....	.....
Flour, carloads	132	141	.....	.....

MINNEAPOLIS—Reported by G. W. Maschke, Statistician of the Chamber of Commerce.

	Receipts		Shipments	
	1928	1927	1928	1927
Wheat, bus.	4,447,810	5,158,730	3,796,170	3,093,280
Corn, bus.	574,460	2,319,460	626,110	910,190
Oats, bus.	1,134,130	740,380	1,850,670	2,747,450
Barley, bus.	974,080	1,076,070	1,039,140	663,650
Rye, bus.	326,430	230,770	142,900	251,730
Flax Seed, bus.	456,700	276,530	172,720	89,410
Hay, tons	1,065	1,312	26	279
Flour, bbls.	14,545	28,741	954,620	897,288

MILWAUKEE—Reported by H. A. Plumb, Secretary of the Chamber of Commerce.

	Receipts		Shipments	
	1928	1927	1928	1927
Wheat, bus.	66,240	518,400	40,000	295,449
Corn, bus.	1,342,360	1,370,480	689,250	275,731
Oats, bus.	256,200	1,200,600	775,750	981,129
Barley, bus.	604,800	453,180	142,800	74,317
Rye, bus.	31,050	90,450	29,200	96,451
Timothy Seed, lbs.	194,345	.....	126	.....
Clover Seed, lbs.	679	.....	1,486	.....
Flax Seed, bus.	61,490	123,041	.....	.....
Hay, tons.	523	756	24	144
Flour, bbls.	278,250	235,650	5,250	30,516

NEW ORLEANS—Reported by S. P. Fears, Chf. Gr. Insptr. & Weighmaster of the Board of Trade, Ltd.

	Receipts		Shipments	
	1928	1927	1928	1927
Wheat, bus.	.....	27	168,299	207,397
Corn, bus.	97	174	206,975	338,942
Oats, bus.	25	36	65,640	106,369
Barley, bus.	.....	1	.....	.....
Rye, bus.	1	2	19,285	.....
Grain Sorg., bus.	3	5	.....	.....

OMAHA—Reported by F. P. Manchester, Secretary of the Omaha Grain Exchange.

	Receipts		Shipments	
	1928	1927	1928	1927
Wheat, bus.	628,800	949,200	357,000	655,200
Corn, bus.	1,356,600	3,312,400	3,085,600	1,790,600
Oats, bus.	394,000	372,000	622,000	450,000
Barley, bus.	8,000	3,200	40,000	1,600
Rye, bus.	22,400	39,200	18,200	14,000

NEW YORK CITY—Reported by H. Heinzer, Statistician of the Produce Exchange.

	Receipts		Shipments	
	1928	1927	1928	1927
Wheat, bus.	5,058,400	3,743,800	5,414,000	4,496,000
Corn, bus.	163,000	66,000	.....	43,000
Oats, bus.	336,000	1,088,000	.....	47,400
Barley, bus.	1,278,500	529,600	1,583,000	1,390,000
Rye, bus.	471,500	715,500	717,000	781,000
Clover Seed, bags	600	.....	373	360
Flax Seed, bus.	106,000	176,000	.....	.....
Hay, tons	3,911	4,611	289,000	.....
Flour, bbls.	894,090	798,719	259,000	235,000

PEORIA—Reported by John R. Lofgren, Secretary of the Board of Trade.

	Receipts		Shipments	
	1928	1927	1928	1927
Wheat, bus.	45,600	73,200	28,800	55,200
Corn, bus.	1,872,800	3,065,075	927,600	1,819,450
Oats, bus.	668,000	693,075	579,600	6,072,200
Barley, bus.	138,600	134,400	56,000	71,400
Mill Feed, tons	31,260	22,040	36,830	30,269
Hay, tons	1,620	1,990	80	190
Flour, bbls.	205,900	203,600	206,450	191,400

PHILADELPHIA—Reported by A. B. Clemmer, Secretary of the Commercial Exchange.

	Receipts		Shipments	
	1928	1927	1928	1927
Wheat, bus.	569,252	383,007	150,772	1,248,218
Corn, bus.	20,723	56,570	.....	.....
Oats, bus.	54,698	123,393	.....	.....
Barley, bus.	1,642	1,118	.....	.....
Rye, bus.	1,099	1,177	.....	.....
Flour, bbls.	135,747	182,073	5,046	16,134

PORTLAND—Reported by F. W. Clark, Secretary of the Merchants' Exchange.

	Receipts		Shipments	
	1928	1927	1928	1927
Wheat, bus.	855,500	751,100	305,171	252,851
Corn, bus.	126,500	171,000	107	1,36
Oats, bus.	64,600	160,000	.....	2,521
Barley, bus.	19,200	46,400	34	.....

ST. LOUIS—Reported by C. Rader, Secretary of the Merchants' Exchange.

	Receipts		Shipments	
	1928	1927	1928	1927
Wheat, bus. . . .	1,041,600	1,341,200	862,400	1,235,615
Corn, bus.	2,543,800	2,798,600	2,073,868	1,614,000
Oats, bus.	1,164,000	1,568,000	1,268,200	1,448,000
Rye, bus.	3,900	2,600	.....	27,500
Barley, bus. . . .	26,800	9,600	22,400	3,200
Kafir, bus.				
bus.	82,800	106,800	38,400	38,400
Hay, tons	5,292	6,084	1,476	1,608
Flour, bbls.	447,710	519,070	352,820	373,640

THE GRAIN MARKET SITUATION

By G. A. COLLIER

Grain, Hay and Feed Market News Service, Bureau of Agricultural Economics, U. S. Department of Agriculture.

Improved prospects for Winter wheat, together with increased movement of new crop grain and only a moderate export demand for the increased stocks of old crop wheat still available in the principal exporting countries, weakened the wheat market during the latter part of June and early in July. An active demand for the rapidly diminishing supplies of corn and oats on the other hand held prices of these grains fairly steady, although oats prices at this writing (July 11) are tending downward. Cash oats, however, continue to bring unusually large premiums over future prices. The rye market has weakened and prices have declined as a result of a limited demand. Prospects of another large crop of barley have weakened the market for that grain. Flax has also declined, although prospects at the first of July indicated a crop around 5,000,000 bushels smaller than was harvested last season.

About 36,125,000 acres of Winter wheat remained for harvest at the first of July, according to the official estimate, and a crop of 543,782,000 bushels was indicated from the condition which was reported at 75 per cent of normal, or slightly below the 10-year average. While an increased acreage of Winter wheat was sown last fall, nearly two-thirds of the sown acreage in the states of Ohio, Indiana, Illinois and Kentucky, or about 5,500,000 acres, was lost from winter killing. On the area remaining in these states the stand is so thin that it is difficult to estimate the probable outturn. The production for Ohio, however, is estimated at 9,941,000 bushels compared with 28,980,000 harvested last season. The crop in Indiana is estimated at 8,421,000, in Illinois at 14,894,000 and in Michigan at 14,404,000 compared with 27,621,000, 30,956,000 and 19,156,000 bushels, respectively, in these states last season. A smaller crop than was produced last season was in prospect in Nebraska but the crop in Oklahoma promises to be about 75 per cent larger than last season. The Winter wheat crop in the Pacific Northwest in Washington, Oregon and Idaho will also be materially smaller than last season, according to the July 1 estimate and will total slightly less than 55,000,000 bushels compared with about 80,000,000 bushels produced in those states last season.

The condition of Spring wheat other than Durum at the first of July was less favorable than last season on that date and was reported at 71.7 per cent of normal compared with 89.9 a year ago and 82.6, the average condition of all Spring wheat during the past 10 years. The acreage remaining for harvest is slightly larger than last season and is estimated at 15,478,000 acres. An average yield of 11.8 bushels per acre is indicated which would produce a crop of 182,623,000 compared with 243,000,000 bushels harvested in 1927. Durum wheat acreage was increased nearly 1,000,000 acres, or 16.6 per cent, and is estimated at 6,147,000 acres. The condition of the crop at the first of July was 76.2 per cent of normal, which would indicate an average yield of 12 bushels per acre and a crop of 73,532,000 bushels compared with 76,155,000 bushels harvested last season.

An increased acreage of Spring wheat has been sown in Canada and totals 22,610,000 acres, according to a preliminary estimate compared with 21,607,000 acres last season. The crop has made excellent progress and the condition of Spring wheat at the first of July was reported at 103 per cent of the 10-year average yield. This condition would indicate an average yield this season of 16.1 bushels per acre compared with an indicated yield of 15.3 bushels at the first of July last season and a final harvested outturn of 19.5 bushels as a result of favorable weather from July 1 to harvest. This produced a crop from which about 465,000,000 bushels have now been accounted for.

The supply of wheat still available for export in the principal surplus producing countries outside of Europe at the first of July appeared to be

around 50,000,000 bushels larger than a year ago. Stocks of wheat in the principal United States markets at the first of July were about 17,500,000 bushels larger than last season, but farm stocks, which were estimated at 23,450,000 bushels, were about 3,750,000 bushels smaller than last year. No official estimate is available of country elevator stocks, but trade reports indicate that they may not be materially changed from last season, so that probably there were 10,000,000 to 12,000,000 bushels more wheat in the United States at the beginning of the new crop year July 1 than last season. Stocks in Canada are about double what they were a year ago, commercial stocks at the close of June totaling 97,486,000 bushels compared with 46,909,000 last year. The increased supplies in the United States are slightly more than offset by smaller stocks in the Southern Hemisphere. Stocks of old wheat in the principal European countries are probably practically exhausted, as is usual at this season of the year. With the harvesting of new wheat under way in southern Europe, however, prices of native wheats have declined. Native wheat of good milling quality declined about 30 cents per bushel during June at Milan, Italy. French wheat at Paris declined 7 cents, while prices of native wheat at Hamburg declined about 5 cents per bushel during the month. Liverpool future prices declined about 4 cents for the period June 15 to July 10, inclusive, and quotations on Indian and Australian wheat delivered Liverpool were slightly reduced.

CASH WHEAT MARKETS INACTIVE

The domestic markets for cash wheat were rather inactive during the latter part of June and early in July with mills taking only sufficient wheat for immediate needs. Export demand was very limited as prices of most milling wheats were above an export basis. Some mills were reported to be accumulating stocks of high protein old wheat for mixtures with new crop grain, but protein premiums were somewhat reduced both in Hard Winter and Spring wheat markets with the lower protein types in best demand.

Harvesting of new Winter wheat has proceeded rapidly since the first of July in the Southwest and at this writing is well under way in Kansas, Nebraska and Missouri. Kansas wheat is reported of good quality and is showing higher protein content than generally expected by the trade. An average of about 12 per cent protein is indicated by early samples.

CORN ACREAGE INCREASED

An increase of 3.6 per cent over last season in this year's corn acreage was reported at the first of July with the condition 78.1 per cent of normal, which is considerably better than was reported at the first of July last year but about 4.5 per cent below the 10-year average. The best conditions relatively are found in the North Central and Western States, Michigan, North Dakota and Montana excepted. In many of the South Central States where rainfall was excessive and June temperatures below normal the condition of corn ranges from 60 to 66 per cent. The condition on July 1 indicates a yield of 26.7 bushels and a production of 2,735,617,000 bushels, or about 51,000,000 bushels less than was harvested in 1927. The cash corn situation continued very firm during the month with an active demand prevailing for the relatively small arrivals of corn at the principal markets. Commercial stocks have been reduced to less than 16,000,000 bushels, which is about 20,000,000 bushels less than was in store at the first of July last season. No statistics relative to the amount remaining on farms are available, but receipts at the principal markets have been heavier than last year, which would indicate a further reduction since the first of March, when farm stocks were 114,000,000 bushels smaller than a year ago. Prices held generally steady during the month and at this writing No. 3 Yellow corn is still selling well above \$1 per bushel in the principal Central Western markets.

OATS MARKET INDEPENDENTLY FIRM

The oats market continued independently firm during the past month, although cool weather during June improved prospects for the new crop.

The acreage remaining for harvest is practically the same as was harvested last year, according to the July 1 official estimate, and totals 41,974,000 acres. Substantial increases are shown in Ohio, Indiana, Illinois, Missouri and Kentucky, where much abandoned wheat land has been planted to oats. In the Southern States the acreage of Winter oats was sharply reduced by the extensive winter killing. The condition at the first of July was the same as a year ago, or 79.9 per cent of normal. This condition indicates an average yield of 31.5 bushels per acre and a crop of 1,320,097,000 bushels, or 125,000,000 bushels more than was harvested last season.

Market stocks of old grain are practically exhausted at a number of points and current arrivals have been scarcely sufficient for market needs. Premiums for cash grain were well maintained and at this writing No. 3 White oats at Chicago are bringing 10 to 12 cents per bushel over the July future price. New oats from Texas and Oklahoma are competing with local offerings in Central Western markets. No. 2 Red oats were quoted July 6 at 48 to 49 cents per bushel at Texas shipping points.

The rye crop has shown little improvement over the low condition reported June 1 and at the first of July the condition was 66.7 per cent of normal compared with a 10-year average of 82.2 per cent. The lowest condition prevailed in the North Central States where low yields are expected in spite of some recent improvement in the crop. The July 1 condition indicates a yield of only 11.1 bushels per acre compared with 16 bushels harvested in 1927. The acreage of rye for harvest is about 4 per cent smaller than was harvested last season and a crop of 39,273,000 bushels is forecast.

Notwithstanding the poor prospects of this season's crop, the market has turned very dull as a result of a slow demand both from domestic and export buyers. July rye at Chicago was quoted July 10 at \$1.15 compared with \$1.28½ a month ago, a decline of 13½ cents.

RECORD BARLEY CROP IN PROSPECT

Another record crop of barley is in prospect this season if the present indicated yield of 24.8 bushels per acre on the greatly increased acreage is realized. According to the July 1 estimate, barley acreage in the United States was increased 29.5 per cent over the area harvested last season, making a total of 12,243,000 acres for harvest this year. The condition of barley on July 1 was reported slightly below the 10-year average and was reported at 81.3 per cent of normal. This would indicate a crop of about 303,000,000 bushels, exceeding the largest previous crop by about 14 per cent.

These favorable prospects for the new crop, together with a more limited demand, weakened the market during the month and prices tended downward in the Central Western markets. The export demand, which has been very active during the past year on account of the shortage of feed grains in Europe, has fallen off as European buyers recently have been able to obtain supplies at lower prices from competing countries, including Canada.

A decrease of 2.6 per cent in flax acreage from that harvested last season was reported at the first of July notwithstanding trade reports show increased seedings following the dry weather earlier in the season. The acreage to be harvested is estimated at 2,831,000 acres.

ABOLITION OF THE SWISS GRAIN MONOPOLY

The Swiss Federal Council has found a way of abolishing the grain monopoly which they think will harm neither the farmers or the millers, according to O. B. Moussman in the office of the American Commercial Attache at Berne, Switzerland. The proposition is to be voted on at a national referendum next autumn. The measure proposed abolishes the grain monopoly but continues subsidies to producers and millers, the expense of which is to be borne by increased fees "for statistical control" levied on merchandise entering the country.

Oklahoma Concern Adds to Storage

New Concrete Elevator of the El Reno Mill & Elevator Company Brings Its Storage Capacity to 850,000 Bushels

ON ACCOUNT of its soil, climate and topography, Oklahoma is well adapted to the production of wheat, especially in the northern, central and western portions of the state. The growing of wheat has continued to increase ever since the country was opened for settlement in 1889, and at present the State of Oklahoma ranks second in the quantity of Hard Winter wheat produced in the United States. As to quality, there can be little doubt as to its favorable rank. "Exactly twice the percentage of Oklahoma wheat grades No. 1 as the average for the United States," said the Department of Agriculture in *Crops and Markets*, of December 25, 1925. "The other leading winter wheat states did not approach Oklahoma in the quality of wheat." The growth of industry in this section may be judged from the fact that the population of Oklahoma (including what was then Indian Territory) in 1900 was 790,391; and in 1920 the census by the Government showed a population of 2,047,397.

In the heart of this prosperous area is the plant of the El Reno Mill & Elevator Company, located in El Reno, Okla. Five country stations also have elevators operated by this concern—Greenfield, Hydro, McCool, Switch, Mimco, and Reading, all in Oklahoma. Just recently the company has completed a 285,000-bushel addition to the grain storage facilities at El Reno, thus giving an aggregate capacity there of 850,000 bushels at the present time. Not only is an extensive milling business carried on, but grain is received, stored, conditioned and handled at the El Reno plant in carload lots.

The elevators are situated along the right of way of the Chicago, Rock Island & Pacific Railway. Elevator No. 1 is a modern concrete fire resistant house, motor driven throughout. Eleven large concrete receiving and storage tanks are available, and there are 38 other bins varying from 2,300 bushels' capacity to 13,000 bushels. A 2,000-bushel type registering hopper scale is used, and there is an Ellis Drier for conditioning grain. The cleaner has a capacity of 5,000 bushels per hour. The unloading capacity is 40 carloads daily.

Elevator No. 2 is a cribbed fast handling export house, divided into 23 bins and two additional steel tanks. Remodeled and used for mixing and loading export wheat, this house has rendered good service continuously. The bins are connected with the No. 1 house by a carrier belt. There is a 100-ton type registering track scale, and a separator for separating mixed grains.

Both elevators are equipped with the Zeleny Thermometer System in all storage bins, enabling the management to read the temperature of the grain in all these bins at intervals of five feet. Both houses are also equipped with dust suction and ventilating systems to prevent dust explosions. All weighing is done under the supervision of a sworn weighmaster of the Western Weighing Association, and all grain is unloaded and loaded under the inspection of a Federal grain inspector. One of the most up-to-date laboratories has been installed, and this operates in conjunction with a complete experimental mill belonging to the company. The laboratory has apparatus for running protein and moisture tests, mixing machines and ovens (electrically equipped) for baking and testing bread.

In all, there are 97 bins available, with a receiving capacity of 24 cars daily, a cleaning capacity of 5,000 bushels per hour, and a drying capacity (by means of the Ellis Drier) of 500 bushels per hour. A Western Corn Sheller is also in use, and there is a Jay-Bee Feed Grinder.

The prime mover is a 60-cycle, three-phase electrical unit, and 500 horsepower is developed by this motor. In all, there are 14 motors in the elevator and 66 in the mill. These range in size from one-half to 500 horsepower. The drives include rope, belt and chain. Eight belt conveyors are used, above and below, rubber for the conveyors

having been supplied by The B. F. Goodrich Company, of Akron, Ohio. About 3,500 feet of 24-inch belting is used.

Unloading devices include a power shovel and a car door puller, made by the Weller Manufacturing Company, Chicago, Ill. The scales are chiefly of Fairbanks, Morse & Co.'s make.

The principal grains handled include wheat, corn, oats, kafir, milo maize, rye and barley; and the company also does an extensive business in coal, sand and rock. During the course of an average year approximately 1,500,000 bushels of grain pass through the system of elevators at El Reno.

The El Reno Mill & Elevator Company was organized on November 1, 1892, with \$10,000 capital stock subscribed by Stuart Hare and George M. Randall of Enterprise, Kan., E. D. Humphrey, P. L. Fritz and J. L. Nissley of Abilene, Kan. A charter was granted to the company by the Territory of Oklahoma on November 21 of that year, with authorized capital of \$50,000. Only one of the original stockholders, E. D. Humphrey, moved to El Reno and was active in the management of the enterprise. He remained secretary and treasurer of the corporation until 1905, and in that year was elected president. He continued in this capacity until 1915, in which year he died.

The authorized capital was increased to \$300,000 on July 30, 1902. On March 14, 1922, a new charter was granted. There have been some changes in

added to the El Reno mill and elevator property.

Capable management has been the cause of the signal progress and growth of the organization. E. D. Humphrey, who founded the business, was a business man of highest integrity and his plans for success, founded upon rugged honesty and absolute fairness, have been and are being carried forward under the direction of his three sons, K. E. Humphrey, M. E. Humphrey and G. E. Humphrey. The first named is president and general manager and the other two brothers are each vice-presidents. Karl E. Humphrey was president of the Oklahoma Millers Association a few years ago and has served successive terms as a director of the Millers National Federation. He is not only prominent among millers of the country, but has attained considerable prestige in local affairs, looking toward the upbuilding of El Reno. He devotes a great deal of time and attention to matters of a civic nature and affairs of state-wide importance. It is interesting to note that his father, E. D. Humphrey, also played an important part in his community. In the early days of the grain trade in Oklahoma he earned the respect and warm friendship of all with whom he came in contact.

WAS THE POLICY DELIVERED?

By M. L. HAYWARD

The grain dealer had insured his stock in the Pyro Insurance Company, at least the premium had been paid, the application accepted, and the company had forwarded the policy to the local agent, with instructions to deliver to the grain dealer.

The agent took the policy out of the postoffice,



NEW ELEVATOR OF THE EL RENO (OKLA.) MILL & ELEVATOR COMPANY

ownership of stock, but the control has remained for the most part in the Humphrey family.

The mill which was originally operated by the company was built in the fall of 1892 and the spring of the following year. It had a daily capacity of 150 barrels of flour and a limited storage capacity for wheat. A grain elevator with a capacity of 50,000 bushels was erected in 1896. New machinery and improved equipment were installed from time to time and the original mill went through a process of modernizing, until its capacity reached 375 barrels. In the spring of 1916, a modern re-inforced concrete, daylight type, mill building was brought to completion with thoroughly up-to-date machinery, and the new plant commenced operation August 2, 1916. The capacity was then 1,100 barrels per 24-hour day. The original mill was converted into a corn mill.

During the ensuing eight years, modern concrete grain storage was provided, giving a capacity of 450,000 bushels of grain. Since then the capacity has been brought to 850,000 bushels, and other improvements have been made from time to time, and today the El Reno Mill & Elevator Company is quite generally spoken of as the "Sunshine Mill." An office building which is just as thoroughly modern as the rest of the buildings has also been

decided to deliver it on his way to his own office, but the fire engine passed him on the way, and when he arrived at the grain dealer's warehouse he found that the fire was beyond control.

"It's a lucky thing the policy did not arrive an hour earlier," the agent assured himself, returned the policy to the company, the grain dealer sued, and the company defended on the ground that there had been no legal delivery of the policy.

"When you forwarded the policy to your agent to deliver to me, and there was nothing for me to do except to receive the policy, the agent held the policy for me, and there was a complete and binding contract," the grain dealer contended.

This point came before the Massachusetts Supreme Court in the case of Wheeler vs. Insurance Company, 131 Mass. 1, where the court ruled in the grain dealer's favor, and there are Michigan, Nebraska, New Hampshire, New Jersey and Ohio rulings to the same effect.

NET exports of the most important exporting countries since July 1927, as reported to date amount to 717,000,000 bushels, or 32,000,000 below exports from those countries in the same period last year. These figures include exports from most of the important exporting countries up to June 2.

HAY, STRAW AND FEED

OUT on College Hill, a far-flung suburb of Cincinnati, Ohio, there is a feed store. It isn't a huge, pretentious institution at all. The sign over the door announces the College Hill Feed Store against the jet black walls that throw the colors of feed exposed outside so squarely into relief. Within, C. L. Winnes and L. C., his son, preside; much as rural feed men have presided about their stores since the country was young.

The building to this store is just 40 feet across and 50 feet in depth. There is one big, broad window at the front. With this, things of interest begin. The window is spanned by almost invisible wire. Down from this wire envelopes, no two alike, packed with all imaginable sorts of seed the locality may present, are hung. Care is taken to stress the colors on these packets. Instantly the array catches every passer's eye. Possibly the seeds are not feed, of course. Possibly it is bad business



COLLEGE HILL (OHIO) FEED STORE

practice to give one's window primarily to a side-line. But the Winnes' know that this brilliant rainbow on the pane pulls all eyes to the window, that it serves to set the eyes seeing what may be, just beyond there.

In fact, experience and experiment prompt them to go farther in this direction. Down from that line of envelopes, hung by invisible wire again, a large placard announced fresh grass seed. Somehow, people always can use more grass seed. Somehow they are always willing to buy. So viewers stop and come in for—grass seed particularly. They mark the seed and the feedstuffs they had put off ordering. They order of these then and there.

Twelve to a row, just as many rows as the window will hold, there are pans of granite ware in the window here. The lot of them remind of so many new-shape pawns on a checker board. Each pan is of the so-called one-pound size; it will hold a pound of average ware. In these cans the feed man exposes corn and beans, limas, sunflower-seed, other lesser-known items of his wares. Each pan has its price card; that all who run may read. Everyone expects to find feed in a feed store. There is no use showing much of the staple wares. But not everyone expects to find the feedman selling side lines like these. The novelty of this, the array of the displays, tempts—and repays.

Let us follow the crowds from the window on into the store; through the door at window side.

Yes, this is a feed store so persons coming primarily for feed will know what is stocked inside. That being so, there just isn't great use displaying exactly that.

Let's use our real exhibition space for things handled that pay and that comers might not so readily guess. For example, plant foods. Some of every sort carried here, stacked as a low hedge work each side in from the door. Then poultry

A Feed Store Which Reflects Originality

By FELIX J. KOCH



feeds. Not all the feed stores in suburban trade carry as wide a variety as they. Signs telling of such will help little. People do not come to stores to read signs. Let's build a small exposition of them; put them where folk must see.

Along with these poultry feeds a something that will add a touch of color along. Something, too, that arouses the curiosity with those who may not know. See the great swaying bundle of countless vari-colored chains here. These chains are built up of so many bands, for slipping about chicken legs. The bands retail 10, 15 and 18 cents a dozen. They have their proper profit. Put on the chickens by the buyer, they excite curiosity of every person seeing those chickens. They lead to their inquiring. They advertise. It pays to advertise these days!

Now we are well in the store. Shelving upon shelving rises high at the one side. Again let's omit the obvious things, the things we expect to find in any seed store. Instead, see the muffin pans! Dozens upon dozens on dozens of them! We've never seen so many before; not even in an in-city tin-store. Every muffin pan has its couplets filled with a something. On that something is a picture from an envelope or where else. These pictures betray contents of the cup there. Vegetable seeds in endless sorts here. Worm powders of all descriptions. Disinfectants of endless sorts. Sprays. If you have the least question to ask as to what you'd purchase, out with a pan, out with the sample, and showing this sample, showing all companion wares carried along.

Far back as the eye can reach, from store center to wall, here, from store front into rear, are tin barrels, you would call them. Frankly, you cannot place just where you saw exactly such sort of containers before. As a matter of fact, the "barrels" are the vials caustic soap comes in to the industries requiring such near. A moment's glance at the rear of your telephone book will advise instantly of such concerns in your own parts. The Winnes' let it be known that they will buy these barrels, if the lid be cut off fairly neatly. They pay 50 cents apiece for them. They last so long, it pays. Arrived here, the coat of grey paint is refreshed, all shall be spick and span. Then, into the barrel go say 300 pounds of feed. Nine of the big cans go to chicken feeds alone; the base supply for serving customers come to buy of the samples described. It is infinitely more convenient filling small orders from rows of cans like these, to drawing on the big base supply in the warehouse far to rear!

Just that extra help can distinguish instantly, after being told once, certain much-called-for wares go into cans of wholly other type and costing Winnes also the half a dollar each. These are wholesale cracker cans. They will hold say 100 pounds of White Clover; some a hundred pounds of Timothy; others, scratch feeds of different sorts from those aforesaid, in the rest. Feeds which are of their nature, bulkier go into the more resistive cans.

Somehow, there is a sense of tidiness, order, system, that wins instantly to this feedstore. Well

inside, we like to go on. Winnes tells us that using the cans, other containers, saves space. In addition, it serves other ends. It attracts.

Running down store floor center is a table, slightly tipped, to slope like some old-time desk. Squarely along the edge of this table runs a series of bright, shining pails. Each of these pails is heaped, please mark that, it is important, with some one ware that's used for seed or feed. Again we omit the obvious and remark seed-peas, seed-beans, in course.

Below that fore row of the pails, wooden candy tubs are set out. We remark fifteen of these in a line. A pail of more peas is beneath the pail above of such peas; a pail of more beans, below that of the beans. Without disturbing sample at all, one is able to serve the small purchaser in record time there.

Out before these larger candy tubs are two rows of smaller candy pails. Winnes buys them of local dealers in candies when empty at a set rate of 15 cents each. The wood lids to the buckets are scrubbed free of their labels. Then he paints upon each the new content-to-be. Samples of various sizes, sorts of corn, other items of feed, go to bucket. The lid is then slipped on to tilt upright at top center. It forms just the neat telling label to bucket, contents wanted here.

So much for what we've remarked one side the center aisle down store.

Across, down floor extend two rows of sacks of



GARDEN IMPLEMENTS A PROFITABLE SIDELINE

scratch feed. But the rows are exact rows, all. Then come rows of other feeds; the sacks open to show exact contents.

Over these sacks there is shelving. On that, too, Winnes does not show feed. Unless there is a new feed to show, or some bargain in a feed to urge, he believes that comers into a feedstore are already resolved to buy feed. So there is nothing to urge them with feed there. Instead let them see the side-lines.

So, on these wall shelves there are feeders, of galvanized iron. There are the novel individual chick feeders. There are crock feeders. Sell any of these, and it's certain you will sell feed along. Then there are brick flower pots. Thus on.

Far back at rear there is the real warehouse. Here, in the dark, believed best for feed, you find sacks upon sacks stacked high. You find things as you expect to find them in a feed store. Only, you meet far more employees busied loading out, filling orders, than you can recall seeing elsewhere in any store of the size. The proof of any pudding is the eating. The Winnes plan of operation no doubt pays.

We asked Mr. Winnes what, beside the super-tidy, orderly, quick-serving store, he used to build up this mammoth business.

"For one," he replied, giving proof from a copy

July 15, 1928

near, "we advertise in all suburban papers. Big or little, we know that does pay.

"Then, always, we get out seasonal circulars. We mail these to about everyone we believe worth while round. It keeps our name before the local world. It lets folk know we are still here. Just passing our place, the eye gets used to it; takes it for granted. So a sudden jolting in this wise pays.

"Then we believe in signs, in proper place! If you will get about to the neighborhood ball fields, you will find that we have signboards 20 feet broad and eight feet high, on which we advertise staples. Feed, cement, lime—the things everyone uses always—that we want the fact of our carrying kept home. At every suburban ballgame, you may know, there are visitors from the country who will use feed for their cows, feed for chickens, feed for pigeons, so one. We want these folk to know that our stock is so varied we can meet any call. We want them to know that we deliver almost any place. The billboards drive this home.

"Another factor in building a feed trade, we have found extra profitable, is getting ourselves advertised by word of mouth. This brings us orders for the ware may be mentioned. Come for that, customers buy the other feeds beside.

"Investigating to this end we discovered that perhaps more folk in a given area have chickens than have any other feed-consuming thing. So to be advertised by the amateur chicken fanciers is to get the most wide-spread advertising of all.

"Taking one's area, it's not hard to find these chicken growers. You may take the high road. Turn down the first street to right. Park. Await neighborhood boys who pass. Ask them who on that street has chickens. They know. You'll get the names. Take the next street. The next. By and by you'll have your list.

"Then we circularize and telephone, perhaps even visit these folk en route, as we find time. We show them that we carry about everything for a chicken yard but the wire and not that only because we can't spare the space to cut it to the 10 or 20

foot lengths required. The average suburban or farm garden chicken yard will range 15 by 20 feet. It starts with say 50 chicks.

"We show the good prospect that for these 50 chicks to start, he should buy a 25 pound sack of starting mash; this will cost him \$1.30 here now. Ten days after purchase he should return for 25 pounds of baby scratch feed, this a dollar. We then sell him charcoal, five cents the pound; grit



THE POSTMAN IS A PROSPECTIVE CUSTOMER

and oyster shell at two cents the pound. Probably the man will take 10 pounds of grit and oyster shell and five pounds of the charcoal.

"Naturally, he will want a water fountain, or a feeder. The former will range from 20 cents to \$1.80; the latter from 1 cent to \$1.75, or to \$4.50 with the finer sort.

"Buying this much, the man is interested. He will start off just right. Of course he'll take a

box to keep grit and such things, no not the 40 cent sort; the best, the 90 cent one. Yes, put in a bag of that chicken litter. A child can see how worth while it is, insuring the floor staying dry. Only \$1.35 for a 60 pound bag. Who would stop at that? So there goes to his order a sack of orchard-grass top, waste product of the seed stores, that wins its profit, indeed. Such is the demand now for the substance that we handle bale, lots of it for larger scale growers at \$4.50 apiece.

"The 10-cent stores have made fortunes by getting folk in the habit of coming for comparatively small buyings each. A feedstore cannot lose out by employing the same plan," Winnes states.

"When Friend Customer has those chickens six weeks of age, he can change to a growing mash; with an intermediate scratch feed beside. A 25-pound bag of each of these fares a week and that till the chickens are ready to lay will be the order.

"Egg mash and larger scratch feeds, \$3.20 to \$3.90, are next in sequence here. Either of two sorts of egg mash at \$3.60 to \$3.80 will be recommended him. Also, we advise that oyster shell, grit and some green stuff along, be provided for the chickens too.

"Of the 50 chickens with which started, a man will perhaps lose five by the time the flock shall lay. Of the 45 left, some will prove unproductive, or culls. But there will be enough worth-while chickens behind to convince him, at least, it pays!

"The chickens are his hobby, his pets, his pride. He gives away pullets, eggs. He tells of the venture everywhere. Doing this, folk discuss cost of it. He tells whence his supplies. He is certain to send home our name. The advertising is so good it might almost pay us to keep some one, teaching customers best results with their flocks; sending him to patrons everywhere.

"That, though, is of the future still.

"Time being, we know that stressing one feed, this chicken food, over all and having a store we know to be a bit different than most, build a business that, well, somehow repays."

HAY MARKETS QUIET

Seasonal dullness with generally moderate offerings of top grades of hay which were meeting moderate demand featured the hay markets during the week ending July 7, according to the weekly hay market review of the United States Bureau of Agricultural Economics. Pastures were furnishing an abundance of feed in most sections and rains during the past week in the central and eastern sections of the country benefited late hay crops, but were unfavorable for harvesting.

Eastern Timothy markets were practically steady but trading was light with buyers awaiting the heavier movement of new crop offerings. Shipping inquiry was restricted by the abundant pastures and local hay crops in the consuming areas. Receipts at New York exceeded demand and prices were slightly weaker. Top grades were scarce and in active demand but the bulk of offerings was No. 3 or lower and moved slowly. Receipts at Cincinnati were fairly large but with an increasing amount of lower grade hay. Prices at this market held about steady and substantial premiums continued to be offered for best quality of old crop hay. Offerings at Chicago were unusually light and a brisk demand moved all good quality hay at full quoted prices with little or no selling pressure. No. 2 Timothy and Timothy Clover mixtures appeared to be in best demand. Dealers' stocks at this point were reported light and advices from nearby shipping areas indicated that pressure of farm work was restricting country loadings.

Central western Alfalfa markets were steady for top grades which were in light supply, but much of the new crop hay arriving at Kansas City and Omaha was out of condition and sold at sharp discounts. Country loadings in this territory were delayed by the recent rainy weather and the pressure of the wheat harvest. Dairy demand for extra leafy hay was slack as a result of the excellent pastures but sound lower grades were moving readily to the milling trade. There was a good

outside call for Alfalfa at Chicago but local offerings were practically negligible. The first crop of Utah Alfalfa is mostly harvested and although supplies plentiful demand is dull. Prices for this hay delivered at Salt Lake City are around \$12.50 to \$13 per ton. Pacific Coast markets were showing a slightly firmer tendency with fair demand and lighter offerings.

Prairie markets were steady with a slightly better demand. Accumulations at Kansas City were practically cleared away by more active buying from all classes of purchasers. Demand at Omaha was fairly active and limited receipts were readily absorbed. Recent rains have improved the crop outlook in several sections of the surplus areas but rainfall is needed in the Southwest.

HIGH GRADE ALFALFA IN CONSTANT DEMAND

A much larger quantity of high grade Alfalfa could be profitably marketed in the United States if producers would study market demands and then make their production and loading practices conform to the market requirements, according to Edward C. Parker, hay marketing specialist of the United States Department of Agriculture.

Great numbers of dairymen, who do not now utilize much Alfalfa but depend largely on mill feeds for protein, he says, would become buyers of Alfalfa if supplies of high-grade Alfalfa were available at all times. Many farmers are intermittent sellers of low-grade surplus hay, but comparatively few specialize in the production of high-grade market Alfalfa.

Purity, a high percentage of leaves, clinging foliage, green color, and pliable stems are the essential characters of high-grade Alfalfa. The experience of Federal hay inspectors is that the most common causes of low-grade Alfalfa are meadows with thin stands, foreign material in the form of partly decayed rakings, weather damage, over-ripeness at time of cutting, over-drying, baling under-

cured hay, stacking distinctly undercured hay, and baling during very hot, dry, or windy weather.

In most instances, Mr. Parker says, Alfalfa intended for market should be cut when one-tenth to one-fourth in bloom, or when new growth starts from the crowns irrespective of the bloom. There will be little, if any, increase of tonnage gained by allowing the crop to stand longer. At this stage of maturity the leaves usually constitute anywhere from 45 per cent to 55 per cent of the total weight of the plants, and the stems have not become objectionably hard and woody. The grade of U. S. No. 1 Alfalfa can be attained in practically all Alfalfa districts of the United States when crops are cut at this stage of maturity, providing the hay is properly cured and baled and not subjected to much damage from the elements.

A detailed account of hay-making, curing and baling practices in the United States, together with recommendations as to the best methods of performing these operations has been published by the United States Department of Agriculture in a mimeograph pamphlet written by Mr. Parker, and entitled "High Grade Alfalfa, Methods of Production, Baling and Loading for Market." Copies may be obtained by writing the Bureau of Agricultural Economics, United States Department of Agriculture, Washington, D. C.

NEW WISCONSIN FEED RULING

A ruling has been issued by the Wisconsin Department of Agriculture which will change the method of declaring the analyses of mineral feeds or mixtures. Heretofore it has been necessary to print on the label the declaration of the minimum percentages of lime, phosphoric acid, salt, and iodine, besides listing the ingredients used. Under the new ruling the manufacturers are required to change the salt guarantee from the minimum to the maximum.

It is said that frequently feeds would be found to have from 20 to 25 per cent more salt than was

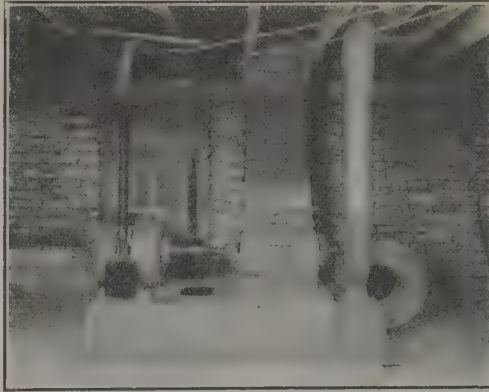
supposed to be present, and the new ruling is intended to decrease the percentage of this relatively cheap ingredient in the feed mixtures.

NEW FEED MILL MEETS SUCCESS

Keen competition and the quick moving of the crops after harvest, with the elevator operator in idleness most of the year, has cut down the revenue of many a country elevator almost to a vanishing point. Naturally, many enterprising proprietors have been casting about for means to meet this situation. A considerable number have met the issue and have been gratified with results.

That country elevators must turn to something besides the handling of grains, in order to get the

are the figures: On Monday, 46 customers were served, and the total weight of merchandise involved was 33,910 pounds, and this translated into dollars and cents gave a figure of \$62.51. The second day, Tuesday, there were 32,814 pounds of feed ground, for 58 customers, at a price aggregating \$60.80. It was found that the electricity used for grinding equalled \$42-\$40 kilowatts at five cents. This is a rather high electric rate, but



THE SUPER MIRACLE ACE HAMMER MILL INSTALLATION

such things vary to quite a degree in different parts of the United States. Possibly it would be fair to say that an average rate of three and one-half cents per kilowatt would have reduced the cost of grinding in this instance to the low figure of \$29.40.

In making a success of a new feed mill it is essential that the miller know how to meet, handle and treat the farmer trade. The wrong kind of an attitude will keep away more trade than all of the best advertising can possibly bring the mill. Frequently the elevator operator has already had a vast amount of experience in this line and is fully aware of the possible pitfalls. However, Mr. Corkins, who is manager of the New Palestine plant, is an old mill man, and knows how to treat the farmer, which is one of the factors in the success of this mill.

After all, feed is a business closely allied to that of any elevator company, and is one which deals in raw products about which the experienced grain

and there is no need for being confused as to probable sale possibilities. The elevator man knows conditions in his own territory and can be governed accordingly in the operation of a feed unit in his elevator.

REPORT ON NASHVILLE HAY

The refusal of railroads to accord concentration and storage privileges on baled hay at Nashville, Tenn., such as are granted on grain, flour, and feed, has been justified by Division No. 3, of the Interstate Commerce Commission.

However, the commission found unreasonable the charges collected on baled hay in carloads from points in central territory, and from Kansas City, Mo., to Nashville, for reshipment to the Southeast. Rates on a new, lower basis must be established by September 4.

DEALERS GET CHOWS IN CHECKERBOARD CARS

The Ralston Purina Company, St. Louis, Mo., manufacturer of Purina feeds ("Cow-Chow," etc.), recently contracted to have several hundred box cars painted with its trademark, the checkerboard, done in red and white around a field of blue. The first of these cars to go into Kentucky was received last month by M. D. Royse, dealer at Winchester, Ky.

The shipment of checkered feed bags was unloaded from the bechecked car into trucks painted in checker design, and hauled to the Royse warehouse covered with the checker design.

NEW SWEET FEED PLANT FOR MINNEAPOLIS

The Maney Bros. Mill & Elevator Company, of Minneapolis, Minn., has purchased additional trackage property adjoining its feed plant and is beginning the construction of a molasses feed mixing plant. A complete line of molasses feeds will be manufactured.

The new plant, to be completed in August, will be of the steam type and the total cost of additional equipment will be around \$10,000. The plans allowed for the installation of more feed mixers as the business increases.

A large storage tank will also be erected that will hold several tank cars of molasses and special



MR. CORKINS

profit that should be expected on such an investment, is pretty well acknowledged by those who are well informed on this subject. Another factor involved of which some are seemingly unaware or else in which they are not sufficiently interested to act, is the matter of keeping records which will indicate what department of the business is producing revenue and whether or not the return justifies the volume of business handled in the different departments. Carrying a great variety of sidelines is not necessarily a solution. In fact, more often there is much more to be gained by carrying on a good business in a limited number of sidelines instead of depending on a variegated volume, some of which will be concentrated in lines which eat up the profits accumulated by the other lines. Certain commodities have become staple among grain dealers as suitable adjuncts to a prosperous grain business. One of such products is prepared feed.

One of the elevator companies which has recently recognized these facts and has acted to remedy conditions is the New Palestine Elevator Company, at New Palestine, Ind. This concern late in January of the present year put in a No. 4 Super Miracle Ace Hammer Mill, direct connected, having purchased it from the Anglo-American Mill Company, Owensboro, Ky.

They adopted the "open selling plan" of the Anglo-American company for their first two days, and decided that they had achieved a most remarkable result, one which at once established them in the feed business. The ultimate result has been that they have been kept busy grinding feed ever since.

Their record for the two opening days—January 30 and January 31—should be of interest to others who contemplate entering this field. The advertising campaign put on in connection with this activity is the one which the Anglo-American Mill Company offer to all their new customers. Here



NEW PALESTINE (IND.) ELEVATOR

man has more than a mere academic knowledge. It is a market which in its local phases must have some degree of stability. A definite relation between supply and demand can be established because the demand remains more or less constant. The animals on the farm must be fed whether crop conditions be good or bad. On the other hand, the supply is susceptible of study in any given area,

equipment will be installed for filling barrels or steel drums with molasses. The Penick & Ford Company's Durham cane molasses will be used exclusively, and a contract has been signed with the Penick & Ford Company of Cedar Rapids, Iowa, to distribute its molasses especially in the territory north and west of the Twin Cities. The saving in freight from Louisiana to Minneapolis

in tank cars of molasses as compared with the freight rate in barrels from Cedar Rapids to Minneapolis and many other points will enable dealers to obtain molasses at a saving of several dollars per ton, it is claimed.

"WE NEED HAY"

The John Devlin Hay Company, Inc., Chicago, Ill., in its letter of July 10, says: We have trade especially in need of the following:

No. 2 Timothy; No. 2 Timothy light and medium Clover Mixed at \$19 to \$21; No. 3 Timothy, light and medium Clover Mixed at \$17 to \$18; Heavy Clover Mixed at \$19 to \$21. Good color Clover Mixed 40 per cent to 60 per cent Clover wanted for race track—\$20 to \$22.

FEED PRICES AGAIN LOWER IN NEW YORK

By C. K. TRAFTON

During the month under review, and especially early in the period, continued pressure of Canadian feeds was the feature of the New York market. A considerable quantity of such goods was offered and sold early in the month at substantially below the prices then quoted by American producers. As a consequence business in domestic feeds was even slower than usual during this dull season despite the fact that our producers reduced their prices to meet the Canadian competition; the cuts being sufficient, in fact, to cause a marked shrinkage in the offers from across the border. This, in turn, served to check the decline in our markets, but it appeared as though the damage had been done as far as business for domestic mills was concerned as buyers failed to show any more interest even though some mills announced that they would advance prices in the near future. As was the case during the previous month, the heavy wheat feeds held relatively steady, while Spring bran again led the downward movement, declining about \$2.85 per ton, or to \$35.25 for quick shipment and also for August-September shipments. Buyers, as usual in the summer, were still showing preference for middlings and as pressure to sell these was much lighter they declined only 35 cents per ton, or to \$41.25; thus increasing their premium over the bran. The decline of \$1.25@1.50 in corn goods was partly sympathetic and partly seasonal.

FEED MARKET WEAK; OFFERINGS LIBERAL

The feed market continued weak during the week ending July 11, the principal factors being slow demand and larger market offerings, according to the weekly feed market review of the United States Bureau of Agricultural Economics. Pastures and meadows made generally good advances except in the Southwest, where moisture is needed. Offerings of wheat feeds were liberal and prices tended downward. Cottonseed meal weakened considerably, but linseed meal continued easy. Gluten, hominy feed and Alfalfa meal were reported weaker than last week.

The output of wheat feeds for the week ending July 7, as measured by flour production, was of moderate volume. About 1,111,000 barrels of flour were produced in the principal milling centers, which compares favorably with the production for the same week of recent years. Offerings of wheat feeds were liberal, principally from resellers, as mills were generally working on old contracts. Brans declined \$1 to \$3 at the principal markets, but the heavier offal demand was sufficient to absorb spot offerings. At Buffalo, the millfeed situation was reported easy with light market demand and though offerings were liberal the market was not overloaded. At Minneapolis, the feed market was quiet and buyers were reported as waiting for favorable quotations on August and September production. Mills at this city were said to have their production sold for the month and were holding July delivery at the present prices. Heavy and rapid movement of new wheat at Kansas City and prospects of increased mill operations caused

heavier offerings from mills for both prompt and deferred shipments and forced feed prices to lower levels.

Linseed meal may be characterized as seasonably weak in both the Eastern and Western markets. At both Buffalo and Minneapolis the market was easy, both demand and production being extremely light. Operations of crushers have continued light because of the slow demand for oil. Prices at the principal markets were 50 cents to \$1 per ton lower.

The cottonseed meal market was generally inactive during the week. Reports indicate that seed is scarce and offerings and supplies are small. Only a few mills are operating and have little surplus on hand. No new crop meal is yet being offered on the market. Selling pressure was sufficient to reduce prices \$1 to \$2 per ton.

Gluten feed situation became slightly weaker on account of the slow demand and liberal offerings by resellers and independent mills. Prompt shipments are now offered at \$1 over the manufacturer's quotations as compared to \$2 last week. Hominy feed was likewise weak. Mill production of Yellow and White hominy feeds increased during the week and subsequent offerings were liberal.

Alfalfa meal continued limited in supply. The Alfalfa harvest proceeded under generally favorable weather in the West with the first cutting practically completed north to Idaho. Mills in the Middle West continue to make sales in small amounts to fill spot orders of mixers. Poor condition of the Alfalfa hay and the light market receipts are restricting millings. Colorado mills are said to be working full time. New Alfalfa meal was quoted at \$27.50, or \$5 under old meal at Kansas City.

NEW YORK HAY PRICES DECLINE

By C. K. TRAFTON

The steady upward movement of hay prices in the New York market during the preceding two months finally resulted in bringing in much heavier shipments from the interior and this in turn served to check the upturn and to force prices to lower levels. Another result of the heavier arrivals was a substantial increase in the volume of business during the last two weeks in June because, as one leading distributor put it, buyers had been shouting for more hay for over two months and when it came in freely they stocked up quite heavily. This good absorption served to hold prices steadily for a short time, but as the receipts continued fairly good after the most urgent needs had been covered prices finally gave way and are now \$1 to \$2 lower than they were a month ago on the choice descriptions and \$3 to \$4 lower on the inferior grades. As a result choice No. 1 is again commanding a premium of \$6 to \$7 over No. 3, compared with about \$5 last month.

STATE SEIZES OIL SEED FEED

Charging that dairy feed manufactured by a Birmingham milling company contained cottonseed hulls which are prohibited by state law, an Alabama feed trade official last month seized 1,300 bags of the feed.

Officials of the feed mill declared their feed contained a higher food content than guaranteed, and denied that they had misrepresented their product in any way. "Hull bran is used in the manufacture of all grades of cottonseed meal," said the millers.

NEW FEED BRANDS

"ALFOLAS" for mixing feed for stock. Alfocorn Milling Company, St. Louis, Mo. Filed April 2, 1928. Serial No. 264,132. Published June 12, 1928.

"LINSEED MEAL" for linseed meal. Linseed Meal Educational Committee, Milwaukee, Wis. Filed February 8, 1928. Serial No. 261,369. Published June 12, 1928.

"CHALLENGE" dog food. Spratt's Patent (America) Ltd., London, England. Filed April 28, 1928. Serial No. 26,581. Published June 19, 1928.

"GOLDEN ROD" livestock foods. John W. Eshelman & Sons, Lancaster, Pa. Filed Decem-

ber 31, 1927. Serial No. 259,538. Published June 5, 1928.

"ECHO" poultry, horse, stock and dairy feeds.



Atco Feed & Supply Company, Atco, N. J. Filed August 2, 1927. Serial No. 252,878. Published June 26, 1928.

Not Subject to Opposition

"MINERALIZED" poultry feed. Hales & Hunter Company, Chicago, Ill. Filed August 25, 1927. Serial No. 253,942. Published and registered June 12, 1928.

Trademarks Registered

243,060. Chicken feed. Elmore Milling Company, Oneonta, N. Y. Filed January 21, 1928. Serial No. 260,434. Published March 27, 1928. Registered June 12, 1928.

243,062. Laying mash, scratch grains, chick grains, calf meal and chick mash. Karl P. Teske, doing business as Teske Milling Company, Davenport, Iowa. Filed January 11, 1928. Serial No. 259,978. Published April 3, 1928. Registered June 12, 1928.

243,237. Wheat mixed and other stock feed. Duluth-Superior Milling Company, Duluth, Minn., and New York, N. Y. Filed December 28, 1927. Serial No. 259,398. Published March 27, 1928. Registered June 12, 1928.

243,246. Stock and poultry feed. Nutrena Feed Mills, Inc., Kansas City, Kan. Filed October 13, 1927. Serial No. 256,052. Published March 27, 1928. Registered June 12, 1928.

243,713. Stock and poultry food, namely, hominy food, wheat bran, screenings, white shorts, brown shorts, milo chops, chick feed, and hen feed. Standard-Tilton Milling Company, St. Louis, Mo., and Alton, Ill., and Dallas, Texas. Filed August 26, 1927. Serial No. 254,014. Published April 10, 1928. Registered June 26, 1928.

243,729. Stock feed made of hominy and molasses. The Patent Cereals Company, Geneva, N. Y. Filed March 8, 1928. Serial No. 263,814. Published April 17, 1928. Registered June 26, 1928.

Prints Registered

10,940.—Title: More Chicks will be Chickens. For Startrite Chick Food. Carl O. Ryde, doing business as Ryde & Co., Chicago, Ill. Published February 21, 1928. Registered June 19, 1928.

RECENT JAY BEE SALES

The J. B. Sedberry, Inc., Utica, N. Y., reports the following sales of its Jay Bee Feed Mill:

Schreiber Milling Company, St. Joseph, Mo., one No. 4 W. Direct Connected; Farmers Co-operative Exchange Company, Lawton, Okla., one No. 3 W. with Fan; Massey & Sons, Norman, Okla., one No. 3 W with Fan; Greysville Milling Company, Greysville, Ohio, one No. 2 U; W. H. Van Landingham, West Point, Miss., one No. 3 UX Direct Connected; Elmore Gin Company, Elmore City, Okla., one No. 4 W. Direct Connected; Southern Milling Company, Augusta, Ga., one No. 4 W. Direct Connected; Douglass Butter Supply House, Chicago, Ill., one No. 2 S. Direct Connected; Zillick & Schafer Milling Company, Cynthia, Ind., one No. 3 UX; Lefterage & Co., Moran, Ind., one No. 3 UX Direct Connected; W. W. Myers, Troy, Ohio, one No. 3 S. Direct Connected; Gilbert Grain Company, Gilbert, Iowa, one No. 4 W. Direct Connected; Aungst Bros., Fayette, Ohio, one No. 4 T with Fan; Aungst Bros., Archbold, Ohio, one No. 3 T with Fan; Pay Day Mills, Inc., New Bern, Tenn., one No. 3 UX; P. W. Walker, Littlefield, Texas, one No. 4 W with Fan; W. C. Smock & Son, Burrows, Ind., one No. 3 UX Direct Connected; Browning Milling Company, Evansville, Ind., one No. 3 UX; Blue Springs Lumber & Milling Company, Blue Springs, Mo., one No. 3 UX; Reed Elevator Company, Decatur, Ind., one No. 3 S. Direct Connected; Heise Bros., Paoli, Ind., one No. 3 UX Direct Connected; L. & S. Grain Company, Buck Creek, Ind., one No. 3 UX Direct Connected.

ASSOCIATIONS

OHIO DEALERS HOLD LARGE MEETING IN LIMA

The forty-ninth annual convention of the Ohio Grain Dealers Association, which was held June 19 and 20 at the Argonne Hotel in Lima, Ohio, was of special interest because of the unusually large attendance. Great strides have been made in the past year in increasing the personnel of the organization, and this was easily discernible from the number of delegates in attendance. The weather was a natural handicap, there having been a bad storm the morning the convention opened. Undoubtedly, many of the country shippers who had intended driving to Lima for the meeting abandoned the plan on account of the heavy rains. Despite this, however, a large number of country shippers were present, along with a good representation from nearby terminal markets.

While the Argonne Hotel was the official headquarters for the Ohio grain men, business sessions were held at the Elks Club. The auditorium of the Elks Club in Lima is spacious and had ideal facilities for a meeting of this sort. At 10:30 a. m., Philip Sayles, Toledo, president, assumed the chair and called the meeting to order.

FIRST DAY'S SESSION

Mr. Sayles called upon Rev. Victor Smith, Lima, who officiated at the invocation. He was followed on the program by Hon. Ellis Jones, mayor of Lima, who made the address of welcome. Mr. Jones was brief but cordial and assured the grain dealers present that it was the wish of the municipality that they might enjoy themselves in every way possible while in Lima; and he added if there was anything he could do to assist in administering this civic hospitality he would be glad to be called upon at any time.



HON. ELLIS JONES

The response to the mayor was made by E. C. Eikenberry, Camden, who interpolated a few facetious comments into a speech which was very appropriate. Having thanked the mayor and the city at large, Mr. Eikenberry promised that the visiting delegates would be on their customary good behavior and take full advantage of the city's hospitality.

President Sayles then gave his annual address, in which he said:

PRESIDENT SAYLES' ADDRESS

We are assembled here this morning to open the forty-ninth annual convention of the Ohio Grain Dealers Association. Just stop and think, for a moment—how long this association has functioned—nearly 50 years. When we adjourn, we start on the fiftieth year. I am deeply grateful to have served you as president the last two years of your first half century. It is with a great deal of pleasure I see so many grain dealers here today. We want you to feel that the meetings are open forum in which you may discuss any problem pertaining to the grain trade you care to bring up. I am more than pleased to recall the fact that the year just passed has been one of harmony and progress in association affairs. This has been accomplished principally through the untiring efforts and enthusiasm of the association's officers.

Your president and secretary have conducted a large

number of local meetings throughout the state, and the secretary no doubt will, in his report, cover this phase of the work. I sincerely feel the local meetings are most essential in our association work. The local "pep" meetings have done a world of good in promoting harmony and fellowship among the members of the country grain trade, and in some instances have smoothed out the bitter differences that have developed between competitors in the same town, and nearby towns. I believe that by holding more local group meetings, there will be a tendency to bring out and call attention to the tremendous value of this association. In this way, the grain dealers will be reminded that in order to protect and advance their own interests they must support and boost their own organization.

There is no difficulty experienced in obtaining the membership of the best business minds in the trade. They are always willing to support any trade association which they feel is doing real work. It is the fel-



PRESIDENT-ELECT EDGAR THIERWECHTER, OAK HARBOR, OHIO, AND RETIRING PRESIDENT PHIL SAYLES, TOLEDO

low who does not know what his cost of doing business is and who is afraid of his competitors that is difficult to obtain. In fairness to the organization, every elevator and grain firm in the state should become a member. We have more than doubled our membership the past year. I feel we owe a vote of thanks to Secretary Cummings for his untiring efforts—he has served us efficiently. Our prayer is that he may serve us for many years to come.

Our association being affiliated with the Grain Dealers National Association brings us in close contact with the best dealers throughout the country. Our members are given the privilege of using the arbitration committees of that organization, thus protecting us in whatever part of the country we buy or sell.

In closing, I wish to call attention to our members to the importance of the association work. Only by organization can we take care of problems affecting our interest. Individually we can do nothing, collectively we can do much.

In concluding my two years of service as your president, I am conscious of having fallen short in accomplishment, but I have served you to the best of my

ability and extend to my successor my best wishes for a successful administration. To the officers and directors, I extend my thanks for their kind consideration, and to the members, my appreciation of their loyal support.

W. W. Cummings, Toledo, secretary of the association, was then called upon for his annual report as secretary-treasurer, which he read:

SECRETARY CUMMINGS' REPORT

During the past year the association revived the old custom of holding group meetings in different parts of the state. Eleven meetings have been held since last August, the attendance being from 25 to 88. The largest turn-out was at Greenville, Ohio, on December 14, 1927. A great deal of enthusiasm was manifested at all of the meetings and were a benefit to the members and also to the association, as many new members were obtained. The fall meeting at Lima on October 25 was also well attended, over 230 being in attendance, although all of them could not be fed owing to lack of reservations.

The membership at the present time totals 256, compared to 126 at the last annual meeting, or an increase of over 100 per cent. We obtained 137 new members, but seven old members were lost through non-payment of dues or discontinuing business. This is the largest membership since the dues were increased to \$10 annually, the nearest being 201 in 1922, and in this connection will say our expenses for the year are the smallest since 1922.

Last September the Governing Board authorized a prize of \$25 be given to the person obtaining the most new members before the annual meeting in June, 1928, provided the winner obtained six or more new members. Joe Doering, our worthy dirt farmer from Antwerp, Ohio, won the prize by obtaining 11 applicants, but was hard pressed by M. R. Maney of Columbus, Ohio, who secured seven new members. The following persons also secured one or more new members: Phil Sayles, 9; Edgar Thierwechter, 4; Charles Keilhoitz, 4; J. A. Streicher, 4; L. R. Watts, 3; George Beeley, 3; J. C. Johnstone, 2; S. L. Rice, 2; Charles Patterson, 2; E. T. Custerborder, 2; Perry Hall, 2; Dean Clark, 2; E. T. Curl, 1; Oscar Teegardin, 1; Al T. Ward, 1; John Wickenhiser, 1; F. R. Watkins, 1; Earl Kieler, 1; and George Towney, 1.

I wish at this time to thank the officers, directors and members for their very loyal support the past year. Your president especially was very active, attending all



THREE SECRETARIES

D. J. Schuh, Cincinnati, Charles Quinn, Toledo, and W. W. Cummings, Toledo

of the group meetings with one exception, and would have attended that one but was detained by auto trouble en route. I wish also to thank our friend, V. E. Butler of Indianapolis, for his very hearty support, he having traveled all the way from his home to attend five of the meetings to give encouraging talks (and paid his own expenses). Other members too numerous to mention attended the different meetings and were a big help in entertaining the crowd and assisting in increasing the membership.

Other activities of the association include efforts to retain present minimum weight on carload shipments; retention of present Federal grain supervision of grain grading rather than Federal grain inspection; obtaining equitable freight rates to the South from Ohio



GRAIN DEALERS AT THE OHIO GRAIN DEALERS CONVENTION AT LIMA, OHIO, JUNE 19-20

July 15, 1928

points; adjustment of excessive telephone rates on party to party calls; wheat treating for smut and weevil; endeavoring to get shippers to tack weight cards on all cars loaded in order to eliminate shortages.

There are about 350 elevators and mills in Ohio who are not members of the association, and with the proper solicitation the most of them could be induced to join. The secretary recommends that one or more members be selected in each county to interview the non-members and obtain their application. It is our most ardent wish to have a membership of 500 at our fiftieth anniversary next June. Will you help? Let's make our Golden Anniversary something to talk about.

Colonel C. E. Groce, Circleville, was then called upon to make some formal remarks in memoriam of departed members. The seven names mentioned in his address were J. B. Van Wagener, November 27, 1927; S. A. Myers, Arcanum, March 16, 1928; L. F. Hammon, Florida, March 19, 1928; H. W. De Vore, Toledo, March 23, 1928; Frank Johnson, Stryker, April 12, 1928; E. A. Grubbs, Greenville, April 12, 1928, and John Wickenhisser, Toledo, June 5, 1928.

The speaker dwelt at some length on the careers of each of these men in the grain business and ended with a eulogy in the memory of each of them.

President Sayles then announced that the award in the membership campaign was to be made, and that Joe Doering, of Southworth & Co., Toledo, was the lucky man. The prize for having secured the most new members was \$25, and Mr. Doering offered to turn this sum back into the association treasury as a donation for a similar prize next year if the treasury would add another \$25 to it. This was done, and on motion by Colonel Groce, the association officially thanked Mr. Doering for his generosity.

The final business of the morning session of the first day was the naming of convention committees. President Sayles named the following for the Nominating Committee: Chairman, John Motz, Brice; Sam L. Rice, Metamora; George North, Groveport.

On the Resolutions Committee he named E. C. Eikenberry, Camden, chairman; J. C. Johnston, Cleveland, and L. R. Watts, London.

The Auditing Committee comprised William Cook, Columbus; L. W. Dewey, Blanchester, and S. Bender, Toledo.

The afternoon session convened at 1:30, and promptly after President Sayles had called the meeting to order, a motion was introduced by J. H. Motz, Brice, to increase the governing board of the association to five members instead of three. The motion was adopted unanimously.

It was necessary to vary the sequence of the afternoon program, and accordingly the chair called upon L. E. Foster, Ohio State University, Columbus, who spoke on "Recent Tendencies in Credit Business." He stressed the need for differentiation between elevators in which merchandising repre-

are not a good risk for the bank it is unlikely that they will be a good risk for the grain elevator owner.

Following Mr. Foster's address, the chair called upon D. J. Steenberg, Milwaukee, Wis., secretary of the Central Retail Feed Association, whose subject was "Sell Feed but Sell It for Cash."

Hon. Edward E. Turner, attorney-general of Ohio, was the next speaker, and his subject was "Duties of Citizenship."

D. J. Schuh, executive-secretary of the Cincinnati Board of Trade, was next on the program, and discussed "The Weighing Problem." Mr. Schuh said:

THE WEIGHING PROBLEM

Why I have been chosen to discuss this problem, when so many people in the State of Ohio are better qualified, is more or less of a mystery to me. Your secretary, however, made the selection and if he has made a mistake in the preparation of your program it is his one mistake, I am sure, since a careful examination of your program displays that he exercised wonderful judgment in the selection of speakers to cover the various subjects.

I should like to have one thing thoroughly understood at the outset of my remarks. It is, whatever I may say is addressed to you from a general point of view, with the aim of assisting in a better understanding of the subject of weighing; and to point out some of the problems encountered and some of the things that may be done to prevent errors.

"The Weighing Problem" is not peculiarly the problem of any market or individual. It is joint property. However, an unfriendly group or individual will often smoke-screen their or his conditions with an attack against the other fellow or market.

It would appear that when the weight of a shipment does not hold out, no other term can be applied to the difference than the word "short." To a large percentage

absolutely no chance of the shipper's theory being correct. If our weighing department had adopted his suggestion one of the receivers would have been called upon to pay for 8,250 pounds of wheat received by another party. Our weighmaster pointed out that as far as the shipper was concerned, he was experiencing only a normal loss on the two cars—approximately 250 pounds. The shipper, after being convinced that a mix-up had not occurred at Cincinnati, said that the two shipments having held out in combined weight was no consolation to him. He then explained that the car showing 8,254 pounds over was one that he and another party were handling together and he was duty bound to give that party the benefit of the overage, while the short car was his own. He did not know what his position was as to the producers of the wheat—some had not been paid enough and vice versa. If the two cars had been weighed at the same elevator in Cincinnati, whether or not by different weighers, our weighmaster never would have been able to convince the shipper that our weighing department had not made a mistake.

The case which I have just related to you is one of the few where a distinct case of carelessness and poor method of keeping records on the part of a shipper was finally cleared up so that the shipper knew that he had made the mistake. If we had not been able



H. E. ELGERT, DAVID H. LARKIN AND E. H. BEER, ALL OF BALTIMORE, MD.

to prove our case despite the fact that we had correctly accounted for the weight, we would have found another shipper dissatisfied and sending his grain where he thought the weighing is done correctly.

The same shipper referred to a moment ago told me that he had discontinued shipping to a certain market, and had not hesitated to tell others, because he believed that that market had "short-weighted" him at one time.

Many errors are traceable to:

Loading direct from wagons or trucks into cars. Use of fixed tare of vehicles. If the gasoline tank is practically empty when the tare is taken and that same tare is used throughout the loading, that car will fall short at destination. Likewise, if the tank is full when the governing tare is determined, the car will run over at destination. Mud under fenders; men on or off the load; use of tarpaulins, etc. The tare should be ascertained after each load.

Use of obsolete or out-of-date scales.

Buyers of grain who load direct from receiving vehicles into cars should be sure that each load goes into the designated car.

We require public weighers who are located at points some distance from cars to keep a man stationed at the car as well as at the scale. A given number of loads—as well as the number of sacks or bales—must arrive at scales. If the movement is from scales to car, the same procedure as prevails in the opposite move must be followed.

The things just mentioned are only a few of the opportunities for inaccurate weights and they are aside from the actual weighing operation or the care of scales. I have placed about this convention hall several copies of a pamphlet relating to the conduct of a weighing department. That pamphlet should throw some light on the weighing problem.

Your secretary asked me to make some reference to "Shipper's Weight Cards," P. P. Quist, Minnesota state weighmaster, covered this subject fully when addressing the last convention of the Terminal Weighmasters National Association. Mr. Quist's address was published in every journal devoted to the interest of the grain business. I feel sure that it has been read by practically every shipper who gives thought to the problem under discussion. Those who have not read the paper should do so. The use of weight cards does much to clear up so-called excessive shortages. They enable an immediate check of weights and any difference in weights as compared with loader's weights can be looked into at once. I shall not attempt to elaborate on Mr. Quist's remarks, but do want to go on record as endorsing what he has had to say and to impress upon loaders of grain that the adoption of the weight cards helps materially in clearing up "at-loss-to-account-for" weighing troubles.

Occasionally the question is raised, "How does it come about that my cars run over—Isn't that proof that my weighing is done correctly?"

There is no such thing as a car running over. The car was loaded that way in the first place. No one added anything to it while the car was moving.

One shipper who complained of a 700-pound shortage showed us certificates of return weights covering four cars shipped elsewhere. One car was 20 pounds over; another weighed out even; the third car was 160 pounds over, and the last car was 40 pounds short. That same shipper said the car shipped to your market was 700 pounds short. I asked him if he always received the full overages. Well, he did not know, but he seldom had a shortage at a certain destination. His overages though were never very much, proving to his mind that he was right and that the other fellow was right and that a 700-pound shortage simply could not exist. In those instances everybody was right. I called his attention to a 1,500-pound overage as compared with his weights on a car shipped to our market six months previous. That was different. He had never been notified of such an overage from the party who always checked even, very little short and sometimes slightly over his weight.

What Is The Cincinnati Board of Trade Weighing Department?

It is a highly regarded institution when it weighs out cars even. If a car is over, "so-called," the re-



E. C. EIKENBERRY OF CAMDEN, OHIO, AND SON, W. L. EIKENBERRY

of people the word "short" means "theft"—if the grain or hay had not been stolen the weight would have held out. Generally, if that thought does not prevail, the conviction is present that the other fellow's weights are wrong. In any event the loader has been given the worst of the deal. That's human nature, but it is the wrong way for either party to look at the matter. I hope to be able to contribute something toward bringing about a better understanding of the weighing problem—at least as it relates to my particular interest.

For some people the weighing problem is like the problem of grandpa's beard. They do not know that the problem exists, and when they discover it they have something before them that is worthy of serious thought.

While we know that the basis of weighing—like any other business transaction—is honesty, the fact remains that without any desire to be dishonest people are denied full payment for their products and merchandise. Carelessness deprives many people of full pay, and carelessness can and does step into the most unexpected places, exacting a tremendous toll. Nothing exacts a larger fee than carelessness—some brand it "neglect." They are companions. Under either title, somebody pays. The payment may be in money or property, in loss of life and many times in the loss of a friend or friends; and along with these losses we see reputations ruined. When the ruin of reputation comes as a result of another's carelessness, that is an extremely unfortunate occurrence.

How many men pay for more grain or hay than they receive, or receive more than they pay for because of carelessness? How do we account for that? Not long ago a shipper called on our weighmaster relative to a car of wheat that had run over 8,250 pounds as compared with his weights. The shipper was at total loss to account for the overage. He showed our weighmaster the scale slips representing each load purchased by him. His records displayed that he had paid for approximately 73,000 pounds of wheat and that was what he expected to be paid for. He offered as further proof that another car of wheat shipped to Cincinnati on the same day showed short approximately \$8,500 pounds. This shipper contended that our weighmaster should take the overage of the one car and apply it to the short car. He was sure that our weigher had mixed the weights of the two cars.

The fact of the matter was that not only two days stood between the unloading of the two cars, but they were not unloaded at the same elevator, so there was



THE NOMINATING COMMITTEE

G. M. North, Groveport, Sam L. Rice, Metamora, and J. H. Motz, Brice, Ohio

sents the larger part of the sales and houses in which grain is the larger part of the total business. He said that in considering operating costs, this distinction had to be observed and that two other primary factors were the total volume of sales and the relation of total sales to investment. He presented a table showing the relation of volume of business to cost of operation in grain elevators and in merchandise elevators:

Grain Elevators	Number of Merchandise	Average Sales	Cost of Operation (Per \$1 of Sales)
11	..	\$ 60,712	\$0.09
33	..	106,748	.07
21	..	173,298	.061
20	..	268,795	.047
..	10	54,928	.095
..	33	118,667	.085
..	22	169,823	.077
..	15	320,490	.049

He also explained that it would be better in every case to find out which sidelines are profitable and concentrate on these, rather than to handle a great number of different sidelines. He warned too that people who cannot secure credit at the bank will attempt to get it at the elevator, and that if they

ceiver of the grain is suspicious of our efficiency until the country shipper tells him that his weights were estimated or he is sure that an error was made. If the car falls "short," the elevator complains that the department is ruining its reputation as well as that of the market, and then the railroad comes in from two angles—it insists on having delivered more grain and complains about paying a claim. With this preliminary statement as to what the weighing department is, permit me to tell you how many people must be satisfied:

- First, the state.
- Second, the Board of Directors.
- Third, the Weighing Committee.
- Fourth, the railroads—they accept our certificates as representing the actual weight of contents of cars.
- Fifth, the receiving commission merchant.
- Sixth, the buyer.
- Seventh, the unloader.
- Eighth, but really first, the country shipper.

From these eight interested parties we should be able to learn considerable covering weighing operations. An amusing incident occurred some time ago in connection with "hearing from interested parties." A delegation of dealers visited a certain gentleman. The gentlemen's first question was: "Anybody here from neither market was represented, he felt free to say all that he could about them. Later when he was asked to grant us an opportunity to investigate his trouble he declined to answer the letter.

The handling of the weighing problem in our market is performed by the Cincinnati Board of Trade, an independent agency, as our pamphlet, which is in your hands, will indicate. The Board of Trade takes care of the scales—not occasionally, but day in and day out. It supervises the weighing; prescribes the system or method to be followed; appoints the weighers and has full and complete control over them; in short, it does all the things that are humanly possible to insure the correct handling of the weighing problem. In this connection I believe that the various state organizations could render a real service to their members in the creation and maintenance of weighing departments. It is a strange state of mind that demands independent weighing operations in terminal markets, and at the same time feels that personally operated scales elsewhere are quite all right.

I do not want to conclude this discussion of the weighing problem without acknowledging that mistakes can be, and are made at both ends of the line. However, we are doing all that we possibly can to eliminate opportunity for errors and to stamp out carelessness. We feel, without any spirit of ego, that we have the problem well in hand and have benefited from experience and advice. We are glad to contribute at any time toward the solution of the problem. From time to time we have assisted country shippers in their endeavor to adopt correct methods as well as proper installation. The finest equipment obtainable will not insure against poor or careless methods. Some time ago a near sage remarked that the automobile has changed everything excepting human nature. This applies to the grain business as disclosed in an article



MARK STEELE AND F. J. MAURER, BUFFALO, N. Y.

appearing in recent issues of grain papers reporting the address of H. H. Ingram to the Western Grain Dealers Association. In this connection our weighmaster has visited with loaders of grain and hay and has been of considerable assistance in installing proper equipment and the introduction of a workable system of checks, etc.

It is my pleasure to assure you that we stand ready to render such service at any time. Furthermore, you have a standing invitation to visit us at any time. Our books, our methods, and our every feature of handling the weighing problem are open to your examination and suggestions, just as the railroads enjoy and exercise that right. Ours is a public institution operated for the benefit of all, whether in weighing ink, grain, tobacco, salt, coal, hay, or any other commodity. There is nothing private about our operations, and we believe that this open book policy places our weighing activities on a high plane. We account for all—no more and no less—than was in the car. If the weight runs over (so-called) that does not change our certificate.

When Mr. Schuh had concluded, President Sayles announced he would call upon representatives of the various terminal markets who were present. He commenced with Fred Pond, secretary of the Buffalo Corn Exchange, who made some brief remarks and told what the Buffalo market will do. He was followed by E. H. Beer, E. H. Beer & Co., Baltimore, Md., who said a few things for that market. Next was Joseph Abel, Abel-Whitman Company, Inc., New York City, the only person present from that market. Joe Doering, Southworth & Co., Toledo, was asked to say a few words on behalf of Toledo.

This concluded the first day's business program, so the meeting adjourned, to reconvene in the evening at the banquet held in the Elks Club.

BANQUET

President Sayles was toastmaster at the banquet, and the principal speaker was C. A. Sunberg, D. D., Springfield, Ohio, whose topic was "Sense and Nonsense." It was mostly the latter, which is fortunate for the banquet, since there is a growing resentment against too much "sense" in after dinner speeches. However, "Sunny" Sunberg was greeted with enthusiastic applause and when he concluded he got another spontaneous round of it.

Entertainment was provided by the Red Birds of Lima, a musical organization composed entirely of girls. Ben Hofner, of Lamson Bros. & Co., Toledo, also contributed much to the musical program. There was dancing at Lima Park after the banquet, which was slightly dampened by a downpour of rain. However, a number of couples took advantage of the opportunity for dancing in spite of the threatening weather.

SECOND DAY'S SESSION

The first speaker on Wednesday morning was Charles Quinn, secretary of the Grain Dealers National Association, and he chose to discourse on the possibilities of the coming national legislative program, the political outlook, and the probable relation between party platforms and the grain dealer's business. The outlook insofar as he was concerned, he said, was not optimistic and called for attention. He also told about some of the things that the national organization has had to undertake lately, explaining at some length what had been toward sponsoring H. R. 13153, a bill which is designed to protect the owners and holders of drafts with bills of lading attached and other instruments. Mr. Quinn also alluded to the proposed international wheat pool and several other bills in Congress which are of interest to the grain trade.

The next speaker was Fred Smith, of the United States Grain Supervision office, Chicago. His subject was "Grain Grading," and he was assisted by B. E. Brooks, of Toledo, who brought motion pictures from the Department of Agriculture office in Toledo. These pictures showed the methods of grain grading, and the methods of handling grain in some of the ports.

It was suggested by Paul Barnes, Toledo, that if those present were interested in having market reports broadcast from Toledo they should write to the station and so inform the station. He impressed the fact that joint moves or combined activity would do little good in this connection and that individual letters would be more effective.

Fred Pond, on behalf of the Buffalo Corn Exchange, urged a joint meeting in Buffalo of the Ohio Grain Dealers Association, the Michigan Hay and Grain Dealers Association and the Indiana Grain Dealers Association.

Committee reports were then in order, and Chairman J. C. Johnston, Cleveland, brought in the following resolutions, which were adopted by the meeting:

REPORT OF RESOLUTIONS COMMITTEE

The Ohio Grain Dealers Association, in closing one of the most successful meetings in its history, desires by resolution to direct attention to the factors which have served to make of this an outstanding convention, therefore be it

Resolved: That we recognize with gratitude the cordial welcome of the mayor of the city of Lima, Ohio, the friendly attitude of its citizens and the commodious quarters provided for the sessions of the convention. That we extend our thanks to all who have contributed to the program, including Attorney-General Turner and Rev. Sunberg, commending the general excellence of the various addresses and the musical program at the banquet, and that we commend the officers of the past year in their conduct of the affairs of the association and especially the labor of Secretary Cummings, who by ceaseless effort and zeal has more than doubled its membership.

Whereas, the Interstate Commerce Commission is engaged in holding hearings in connection with Docket 17000, and investigation of the freight rates applying to farm products, said investigation coming as a result of the Hoch-Smith Resolution; and *whereas*, the Interstate Commerce Commission will, in the near future, take up Part 7-A, grain and grain products moving into, through and from the State of Ohio; and *whereas*, the said interstate movement of grain and grain products will be affected by the freight rates to be established as a result of the said investigation; and *whereas*, any readjustment of interstate rates may result, first, to the detriment of Ohio producers and handlers of grain and grain products in that such farm products of western states may be permitted to move through the State of Ohio on rates that will present ruinous competition; second, in proper adjustments that will preserve to the Ohio producers their rightful outlet for grain and grain products; third, in full participation of the State of Ohio in all phases of the Interstate Commerce Commission's investigation under its Docket 17000, Part 7-A, grain and grain products, to the end that our people may not be deprived of their commercial rights and may procure freight rate adjustments which will place them at no relative disadvantage with other producing sections of the United States, and be it further

Resolved: That a copy of these resolutions be placed

before the governor at the earliest possible moment with an urgent appeal to him to immediately set in motion the proper administrative forces of the state to protect the interests of the grain producers and grain marketing agencies in a manner befitting the great State of Ohio and comparable with the splendid efforts made by western states in behalf of their citizens vitally affected by and interested in the same investigation.

Whereas, there is now pending in the House of Representatives at Washington, D. C., a certain Bill No. H. R.—13153, which is designated to protect the owners and holders of drafts with bills of lading attached, and other instruments sent through the banks for collection only, in the event of failure of the collecting bank before remittances have been fully made for such collections. This is of vital importance and will greatly tend to stabilize the business necessarily conducted through the national banks of the country; therefore, be it

Resolved: By the Ohio Grain Dealers Association in convention assembled at Lima, Ohio, that we urgently request the senators and representatives of Congress from the State of Ohio to support said bill and insist upon its passage at the earliest possible moment; be it further

Resolved: That the secretary of this association be directed to send a copy of this Resolution to each of the members of Congress from the State of Ohio and the chairman of the banking committees of the Senate and House of Representatives.

Whereas, a famine in parts of northern China has given rise to appalling conditions of suffering and death, which China in its present disorganized condition is not able to wholly alleviate, be it

Resolved: That the Ohio Grain Dealers Association hereby expresses its satisfaction that a national cam-



JOHN G. BOGGS, CIRCLEVILLE, AND E. K. GRIFFITHS, J. J. BADENOCH COMPANY, DAYTON, OHIO

paign committee has been formed and earnestly hopes that the people of the United States will respond promptly and generously to the Chinese pitiful appeal for food.

The report of the Auditing Committee was presented by William Cook and accepted.

The Nominating Committee then presented the following ticket, which was unanimously adopted by the convention: President, Edgar Thierwechter, Oak Harbor; vice-president, O. P. Hall, Greenville; and secretary-treasurer, W. W. Cummings, Toledo. For directors, Philip Sayles, Toledo, chairman; F. R. Watkins, Cleveland; E. O. Teegardin, Duval; L. R. Watts, London, and R. H. Brown, Cincinnati.

After Edgar Thierwechter had taken the gavel from Phil Sayles and made a few appropriate remarks pledging his untiring efforts in the conduct of the affairs of the association, the meeting adjourned *sine die*.

INDIANA DEALERS MEET IN GARY

The mid-summer convention of the Indiana Grain Dealers Association was held June 28 and 29, with headquarters at the new Hotel Gary, in Gary, Ind. The purpose of the meeting was as much social as business and the program was arranged in such a way that those who chose might take their pleasure and their business in almost equal doses if they followed it carefully. It has always been the custom to concentrate the heavy work of the Indiana meetings on the annual meeting in the winter, reserving the mid-summer conventions for less severe tasks and an opportunity to fraternize. In accordance with this idea, there was only an afternoon session the first day and only a morning session the second day.

The meeting was called to order the first day at 1 p. m., by President Walter M. Moore, Covington, Ind. Community singing, led by A. B. Dickson, secretary of the Gary Y. M. C. A., was the first feature of the program. At the conclusion of this, the invocation was had and Dr. William Grant Seaman, pastor of the First M. E. Church of Gary, officiated.

The address of welcome was given by Mayor Floyd E. Williams, who hoped that the delegates would take advantage of every opportunity to see Gary, and that they would enjoy their stay. Greetings were also given by Captain H. S. Cottingham, president of the Gary Chamber of Commerce, and by H. S. Norton, president of the Gary Commercial Club.

An able address in response was made by C. C. Cole, Bluffton, Ind., member of the Board of Managers of the Indiana Grain Dealers Association. Mr. Cole gave some statistics on the grain trade,

indicating some comparisons by giving figures on the number of elevators in Indiana and the number in the United States. He also showed the range in wheat prices and presented other statistical matter of general interest. His address, in part, was as follows:

C. C. COLE'S ADDRESS

A few figures about our business may be of interest. There are 20,589 country elevators receiving grain direct from the grower in the United States (906 of these being located in Indiana) providing storage for 521,000,000 bushels of grain. Of these 20,589 elevators, 3,368 are co-operative or farmer owned; we also have 351 terminal elevators with storage for 217,700,000 bushels and 7,200 mills furnishing storage for 119,600,000 bushels or a total of elevator and mill storage of 858,300,000 bushels.

The average yearly production of wheat, corn and oats during the past 12 years being 4,914,000,000 bushels, we have elevator storage for one-sixth of the grain produced annually in the United States. If all grain grown was delivered to market during the year, each elevator would only have to fill and empty its house once each 60 days but since the greater portion of all grains except wheat is consumed on the farm where produced (in the feeding industry) the demand on elevator facilities is greatly reduced. It is evident from this that the storage and handling equipment is ample and to spare.

What about other agencies necessary in the handling of grain seeking a market outside of the farm feeding industry?

The grain trade as now constituted has made a market for all grain products by being open each day and paying cash for farm grain as delivered, paying the grower a price so near that obtainable for the product, that the difference between terminal or mill prices and country elevator prices has been half or less than the charges made by other agencies seeking to get the grower a greater portion of the terminal or mill price.

A comparison of average prices received for the crop year 1925 (the latest figures I could obtain) paid by the Indiana Pool and the elevator trade reveals: The members of the Pool delivering wheat received for No. 1, \$1.116—for No. 2, \$1.096 and for No. 3, \$1.068; the average prices paid by mills and elevators for the first quarter of the crop year was \$1.176; second quarter, \$1.47; third quarter, \$1.828, fourth quarter, \$1.674; for the first six months, \$1.326;

\$1.695; 1918 to 1926, \$1.355; thus you see wheat is worth now double the 1888 to 1898 price. Corn prices from 1880 to 1889 were 40.6 cents; 1888 to 1898, 34.6 cents; 1898 to 1908, 47.43 cents; 1908 to 1918, 83.7 cents and 1918 to 1926, 68.3 cents. Corn like wheat was very much higher during the war period but now is twice its value during the 1888 to 1898 period.

Oats prices from 1890 to 1899 were 36 cents; 1899 to 1909, 47.3 cents; 1909 to 1919, 63.6 cents; 1919 to 1927, 64.3 cents; oats also being higher now than they were from 1890 to 1899 by 50 per cent.

It now takes \$1.65 to purchase the same quantity of products, speaking, that one dollar would buy in the pre-war period and it would seem that farm grains converted into dollars at the average prices prevailing in recent years are equal to the purchasing power of dollars acquired from any other source.

There is great need for straight thinking on this subject because the dependence of every person or group upon other persons or groups cannot be denied. The well being of one is of vital importance to the other as we cannot exist alone. Every person (except those who live by their wit or the idle rich) are producers as well as consumers; therefore there should be no cleavage on this subject.

Any solution arrived at must be fair and protect the honest interests of the other. A high price bringing a great profit to the producer would injure the consumer; a low price injuring the producer would not be for the best interest of the consumer because of this dual position of us all.

The only formal paper on the first day's program was one by Fred H. Clutton, secretary of the Chicago Board of Trade. His subject was—

THE FUTURE OF THE GRAIN EXCHANGES

I believe that the survival of the fittest is axiomatic in the economic functions of production, distribution and consumption. It is not thinkable that the intelligent men conducting our exchanges will not continue to keep step with economic progress in modifying and adapting the methods so painstakingly developed through long years of costly experience to meet fairly and squarely new problems as they are evolved.

I am quite humble in my role as prophet, for I know that no man can lay claim to infallibility when he attempts to look into the veil that hides tomorrow or even the next hour from us. And so as a foreteller of things to happen I crave your indulgence and your permission to accept as a major premise the proposition that the things which will happen bear a rather close relation to the things which have happened in the past.

One cannot with certainty provide against the great cataclysms of nature or revolutions in society—but all business men are constantly called upon to forecast their investment and their procedure upon some kind of a guess of the future.

Effect of History

The sources of supply of raw material for the manufacturer—the inventory of the merchant—the outlets developed by the distributor—all are predicated upon this sort of guess. When Joseph was building primitive grain elevators in the Nile valley it is probable that there were councillors of Pharaoh with chopping block whisks who shook their heads over the new venture and said it wouldn't last and that the new grain fields of the Aegean plains would soon put Joseph out of business.

And today I imagine there are those who honestly believe that the grain exchanges are facing not only a difficult future but even complete extermination. Much of this feeling, I imagine, arises from one of two things.

Some remember the sensational things that occurred years ago on or about the Board of Trade, such as corners or squeezes or elevator troubles. But those who remember also forget. They forget that it is the sensational thing that they remember because it is bizarre and unusual. The daily routine of a vast business that measures its greatness in hundreds of millions of bushels of grain bought by processors, exporters, and users, and sold by farmers who in its ready market find cash in exchange for their work and productivity of the soil and sunshine—that is forgotten. Human nature liked to remember the slips of a good man, but is most reluctant to credit him with the 99 per cent of his life which is good. And it is equally true that human institutions are measured not by the good they do but by their occasional errors.

World's New Moral Sense

And the other thing is—that those who fear for the future of the exchanges do not know what steps have been taken within the exchanges to prevent recurrence of the spectacular things of the past. Just as the United States Steel Corporation inaugurated a new era in corporate ethics under the leadership of Judge Gary, and just as all businesses have developed newer and higher ideals of conduct in the last decade or two, so have the grain exchanges eradicated sharp practices and cutting-the-corner dealing. Those who remember the "corners" in grain of the eighties and nineties forget also that the same things were occurring in all businesses. The Diamond Match affair in Chicago—the Union Pacific corner in New York—and even sand in the sugar at the neighborhood grocery.

Practices which were common in all lines of business were condemned when they occurred in the pitiless spotlight of the open market. It is common knowledge that all the important street car and elevated lines in Chicago ran past or looped around one particular retail store because the owner of that store was a controlling stockholder in the city's transportation lines, but the wisdom and conservatism of that situation as a corner—which in effect it was.

But the world has developed in moral sense and grown up as it were and men may not and do not do things they once did—simply because the public does not recognize those things as right and proper.

Along with the growth of these newer conceptions of business the exchanges also have taken steps to guarantee to the public a performance of their functions in all good faith, and in accordance with the newer ideals of business.

The Chicago Board of Trade, in addition to rigidly disciplining any member guilty of violating its rules, has a Business Conduct Committee that examines into the affairs of its members and prevents any tendency to unbusinesslike conduct from developing into an actuality.

Members who may be in temporary trouble are helped over their difficulties until they are strong enough to go it alone. Members who are getting on thin ice because of mismanagement or failure to follow proper ideals in their business are quickly disposed of.

A new clearing house has been organized along the lines developed by our own experience and that of many other grain, banking, and security clearing houses. The clearing house provides security in de-

posits put up to protect traders and makes all its members comply with uniform requirements as to reporting trades and depositing margins. Since the clearing house was organized, failures have been much less frequent—in fact they are so infrequent now that we might almost say they do not occur.

New Warehouse Corporation

A new Warehouse Corporation has been formed that will do away with the complaints that were occasioned under the old warehouse plan. Under the new Warehouse Corporation contract, each holder of a warehouse receipt is invited to record his receipt with a registrar. If he so registers his receipt he will be notified in case his grain is out of condition or is getting out of condition. Should his grain be getting out of condition, he will be offered a price for it by the elevator owner. If he doesn't choose to take this price, the president of the Board of Trade will at once appoint a committee to fix a price that reflects the true commercial value of such grain—and if the owner of the receipt does not accept either of these offers he may withdraw his grain within three days and be guaranteed that he will receive the kind and grade of grain called for in his elevator receipt. Nothing could be fairer than this nor measure closer to the newer ideals of business. And the whole idea back of the plan is to guarantee the integrity of elevator receipts so they will always be as good as gold.

Rules, strictly enforced, prevent the recurrence of the old time corners—those rare things that made such fine newspaper copy and were such choice morsels of gossip for the corner grocery congress. Rules are, of course, no better than the men who enforce them or the men who live under them. The experience and ability of the men composing our Board of Directors—and the high requirements for membership in the association—assured a high level of responsibility under the rules, and a high moral responsibility in their enforcement.

As to the Future?

And as to the future: As Patrick Henry measured the future by the past, so may we. For 80 years our exchange has lived and prospered—and its prosperity has been due only to the fact that it has performed an important part in the distribution of the agricultural products of this nation—and did so efficiently and economically. I believe that the survival of the fittest is axiomatic in the economic functions of production, distribution, and consumption, and it is not thinkable that the intelligent men who are



PRESIDENT WALTER M. MOORE

the second six months, \$1.751 or an average for the entire crop year \$1.535.

It is evident from this that it made no difference at what time in the year the pool member delivered his grain, the smallest loss he could suffer was eight cents per bushel if he delivered his grain after the first quarter of the year, his loss was that much greater. Since the price he received was based on the average of the pool for the year, the comparison should be based on the average paid by the elevator trade for the crop year, namely, \$1.535. It is unnecessary to comment further on this as a benefit to the producer.

The activity to benefit the farmer by legislation resulting in the McNary-Haugen Bill which has twice passed Congress and been twice vetoed by the President is so complicated and uncertain that no one yet has been able to say that it would afford relief to the producer, but the plea is made "Try it and if it does not work, amend it."

If the framers of our Federal income tax law had said, "If this bill will not work, amend it," do you think we would have had our Federal tax law? No. The basic principal of the income tax law of 1926 is the same as the 1913 law and all that have intervened, rates, exemptions and credits being the changes in each succeeding law. This seems to me to be the safe method in all legislation.

The McNary-Haugen Bill seeks by legislation to correct an economic condition existing not only in the farming industry but in all business and industrial activity, the excess of production over consumptive demand. We have potential production of coal greatly in excess of full consumptive demand when such demand is at the peak; our factories have potential production of all products in excess of consumptive demand; we have more labor available than there is demand for, more elevators than there is need of, more retail stores than are needed to serve our people, therefore every line of endeavor is over supplied.

The only remedy for over production of any commodity is the co-ordination of production with the consumptive demand and legislation will not accomplish this.

The present condition of agriculture is attributed by some to the lower prices of farm products. It might be enlightening to study farm product prices over a period of years and learn if this statement is true.

Grain prices during the past 47 years: Wheat prices for the period 1880 to 1888 were 84.8 cents; 1888 to 1898, 67.5 cents; 1898 to 1908, 72.93 cents; 1908 to 1914, beginning of the World War, 80.6 cents; 1914 to 1918,



FRED H. CLUTTON

members of and are conducting our exchanges will not keep step with economic progress in modifying and adapting the methods so painstakingly developed through long years of expensive experience to meet fairly and squarely new problems as they are evolved.

Just what the problems will be no one—however great a sage he may be—definitely knows. If we knew we would formulate rules now and make them effective on such dates that the problems would be solved before they arise. But all that society asks is that the problems be met as they arise—and the Chicago Board of Trade, and I am sure I speak for all the American grain exchanges—pledges itself to honest analysis of the problems and a high sense of moral responsibility when it presents its solution of these problems to society.

Our country cannot stand still—nor can the business men of the country shrink from their duty of leading in its progress. The grain exchanges, and particularly the Chicago Board of Trade, welcome the challenge, and will utilize their present machinery, men, capital, and experience in perfecting their work of marketing the products of the farms.

Cotton Market

The most recent evidence of the forward looking perspective of the Board of Trade was offering the facilities of the exchange for the development of a market in the great Central West for the trading in cotton. This market is unique in that it has been developed so as to reflect more than any other northern market the true commercial value of the staple. This future market, organized for the benefit of hedgers and speculators, is unique in that deliveries on contracts are consummated in Houston-Galveston, the greatest spot market in the world for uniform cotton such as spinners and processors require. And it is unique in that it provides for the first time a hedging market for the cotton planter who picks as few as 50 bales of cotton.

The members of the Chicago Board of Trade, looking still toward the future, recently voted in a referendum way to trade in securities in addition to grain, provisions, and cotton. This step forward should mark an advance in the activities and importance of the exchange. In the opinion of the members, it will supplement the business now done on the floor with a new kind of activity that will not interfere with the old activities. Members who now do a large business in securities in addition to their grain business should be enabled to do at least a large part of their security trading along with their grain business on the floor of the same exchange. The development of the commercial importance of Chicago demands that

its financial prestige be developed also. It is within the dreams of reason that 25 years from now Chicago will be vastly more important than it is now—and that this central portion of the United States will be immensely richer agriculturally and industrially. Growth in population, utilization of our transportation, capitalizing our advantageous location in the center of the United States, all demand that we shall take our part in the development of our opportunities. Dealing in securities on the Board of Trade is a part of the future—an answer to the challenge and invitation that lies in the progress our nation is making.

No intelligent man kicks the mule that carried him over the slough as Bunyan points out—and no group of intelligent men discard the experience of the past. But the future compels the use of the past experience in adapting the exchanges so they may function progressively, fairly, and helpfully to all that they serve. One might also paraphrase the scripture—we are holding fast that which we have and are trying to prevent any man from taking our crown not by force but by adopting ourselves to the progress of the nation and of business.

As we live up to the ideals of the present, so may we safely step into the future. And the Chicago Board of Trade feels that it is honestly and intelligently meeting the marketing problems of today—and so faces into the future with strength and assurance that the grain exchanges and its own exchange in particular will economically serve the nation as efficiently as it now does.

After adjournment, the rest of the day was spent in taking sightseeing trips through Lake Front Park and the sand dunes. The Gary Chamber of Commerce had charge of this part of the program and made preparations so that everyone present could get a comprehensive first-hand picture of Gary.

In the evening, the banquet was held in the Crystal Ballroom, on the mezzanine floor of Hotel Gary. After dinner addresses were made by State Senator W. F. Hodges of Gary, and John W. McCordle, Indianapolis, member of the Public Service Commission of Indiana and operator of grain elevators.

The Friday morning session opened with an address by Charles Quinn, secretary of the Grain Dealers National Association, who talked on the political outlook. He referred to the platforms adopted by the two national parties at Kansas City and Houston and analyzed the stand taken in each case on proposed farm relief legislation. While assuming no definite sponsorship for the stand taken by either party, he endeavored to explain in an impartial way what the platform of each implied and what the probable reaction might be insofar as the grain trade is concerned. He also outlined recent activities of the Grain Dealers National Association briefly and made the same plea for the amended banking legislation which is mentioned in the report of the Ohio meeting at Lima, and which is quoted in a resolution adopted by that meeting, given elsewhere in this department.

C. O. Holmes, state senator and president of the Indiana Bankers Association, spoke on—

HOW LITTLE TIN GODS ARE MADE OR BANKING AS IT IS

Before cutting onto the main track of my hour and 20 minute speech which it is hoped will give this modest crew of pirates the low-down on about as fine a business as there is, there are a few general observations that may be in order. While you can probably give some data about the millions of bushels of corn and other millions of bushels of wheat produced in Indiana the last year, the same kind of figures about the banks of Indiana may not be so well known.

Of the banks in Indiana, roughly, 20 per cent are national, 15 per cent are trust companies, with about 25 per cent private banks and the remaining 40 per cent state banks. This says nothing of the over 400 building and loan associations in Hoosierdom with a \$100,000,000 of resources. While the building and loan associations are not banks, technically, to the layman, the stock he buys in the association is more apt to be thought of as a deposit than the evidence of his share in a partnership in which he is mutually liable with all of the others. These associations are a major factor in home and small apartment financing all over Indiana. If you think of them as competing with banks, let me remind you that this is so, if true, only because of the failure of the banker to meet the financial needs of his customer in the real estate loan and investment field.

The monthly payment mortgage was known to the banker long before the building and loan association began to operate extensively and the first mortgage certificates, now commonly purchased, have long been the answer of the banker to the demand for a more liquid investment. However, the banker of a generation ago, and there are still a great many delayed funerals in banking, was often a peculiar person, who by his rule of thumb methods and lack of adaptability gave real encouragement to the growth of financial institutions of various types.

Perhaps these have come in part, due to the plethora of capital now seeking investment in the United States, in part because of the profits in specialized banking, but chiefly because the banker refused, like a modern drug store, to adapt itself to demands and changes, when he is disorganized, has higher overhead, much less earnings in proportion and the unprofitable phases are left to him.

For instance, in the field of commercial operations, the checking accounts and over-the-counter loans in most banks are either a source of loss or the net earnings are all too small for the risk taken and work involved.

Incidentally one of the griefs of the banker is his undue tax burden; e. g., the banks of Lake County have resources less than twice those of the building and loan associations! The banks, however, pay over 12 times as much of the general tax in this county as do the associations. A recent study of taxation in Indiana shows that banks are assessed at from 15 per cent to 40 per cent more on their value than is any other property or line of business. While 40 per cent of the net income of the utilities in our state goes for taxation, over 70 per cent of the net

in banks goes to that burdensome purpose. Utilities are assessed at 56 per cent of their true value.

Some other lines of competition to which banks have contributed by their attitude in the past are the finance companies, Morris Plan banks, credit unions and now industrial loan corporations.

Referring more directly to this line of business for which I, at the moment, as president of the Indiana Bankers Association, am to speak and on the members of which you all very much depend, let me touch on your relations with banks. In our biennial efforts at better legislation, and that means better regulations of banking and stricter and more frequent examinations over a period of 10 years, two general groups have indirectly been the cause of our progress being so slow. The groups are cattle men, whether raisers, feeders or dealers; and the grain men who are the chief obstacles, and I'm sure without in many cases realizing it or intending it.

Sound banking requires banks of proper capital; executives of seasoned experience, alert to the great changes of the times; and directors who really direct. Now in 1,100 unrelated business units, you will not get all of these requirements altogether very often; hence banking supervision. The weakest chain in that link in Indiana is the director. A bank director is strictly liable in law and should, in fact, be a square jawed business man who takes nothing for granted. Now many of you are directors. Where do you err?

First, in not directing. How many of you have gone in on your own initiative and checked, without warning, either the note case or the deposit ledgers of your banks?

More important, however, and especially because of the nature of your business, is the matter of your borrowing and the restrictions thereon. Take for instance the matter of prices on grain in the last year:

	1927				
	Production (1,000 Bu.)	4/15/27	12/1/27	4/15/28	
Corn	132,453	\$.54	\$.68	\$.96	
Oats	48,700	.37	.43	.58	
Winter Wheat	27,621	1.17	1.24	1.53	
Rye	1,618	.79	.88	1.02	

What is the first thing the banker does who watches the markets in his loan department? Increase margin requirements as prices increase, and usually cut down the ratio of loans to the net worth of the borrower! But you need more money! Your goods are quickly salable and good collateral you say! True, but these immutable laws do not change and the banker who exceeds sound restrictions in veering toward ruin and, I hope, prison.

In the matter of loans! Why limit in national banks to 10 per cent and in state banks to 20 per cent? There is your chief offense. Because 100 years of banking and thousands of wrecks and millions in losses have written these standards in the tragedies of those who would not observe them.

Before you again protest at better banking laws or crowd your banker for excessive loans, remember you, by that, are keeping the banking business in Indiana in an unwholesome condition and endangering the very structure itself.

Then, too, the restrictions on loans may be justified as viewed from the standpoint of your own business.

Take your statement of assets and liabilities carefully detailed to your banker at least once a year to get his slant on it. He can loan much more intelligently, if you do this, and can interpret ratios and policies for you, all to our mutual advantage.

May your stay be pleasant and your dealings always be in a rising market!

"Commercial Mixed Feeds" was the subject of an address by Harold A. Abbott, member of the Executive Committee of the American Feed Manufacturers Association and vice-president of the Albert Dickinson Company, Chicago, Ill.

W. F. Kuehn, Federal representative, Hay, Feed and Seed Division, Minneapolis, Minn., spoke on "The Place of United States Wheat in the World Market." He said:

THE PLACE OF UNITED STATES WHEAT IN THE WORLD'S LARGEST MARKET

Since the beginning of the Twentieth Century agriculture in the United States may be said to have been passing from the exploitation of virgin fields and the open range into mixed farming, or as it is sometimes called diversified agriculture. With the progress of the so-called industrial revolution has come a rapid increase in the urban population and a relative decrease in both wheat acreage and production per capita.

This transition period has been characterized by the increasing importance to the producer of wheat of the domestic market, which has grown as industrialization has advanced, thus affording an outlet not only for wheat but for all agricultural products. Before the World War it had been prophesied by competent minds that by 1930 the United States would cease being an exporter of wheat except in an incidental manner, or in exceptionally good crop years.

The World War brought about an abnormal expansion of wheat growing not only in the United States but also elsewhere, particularly in Argentina, Australia and Canada. The result was, after the war, a buyers' market with wheat marketed largely at a loss by our domestic producers until about the 1924-25 crop year, when a good crop in the United States, combined with shortages elsewhere, made wheat again profitable for a short time. The rapid expansion shown in the World War evidenced the ease of increased production by price stimulation, but with the lowering of real price the domestic producers' exportable surplus comes into competition with wheat from other great exporting countries, to our disadvantage.

The general distribution of the various classes of wheat raised in the United States is well known, that is, almost everyone knows in a general way the areas planted to Winter wheat, Spring wheat, Durum, etc. To give an idea, however, of the general relation between production of the various classes and exports, average figures for the crop years 1921-25 show that about 5 per cent of the Hard Spring wheat production was exported, about 60 per cent of the Durum production, about 20 per cent of the Hard Red Winter wheat production, about 4 per cent of the Soft Winter wheat production and about 40 per cent of the White wheat production was exported as wheat, according to "Inspections for Export" figures issued by the Department of Agriculture. Of the average total production of all classes of wheat for this period, 1921-25, namely, about 210,000,000 bushels, were exported as wheat and flour from an annual average crop of about 800,000,000 bushels. The principal competition with

these exports comes from the excess production of Canada, Argentina, Australia, India and in a small way since the war from Russia and the countries of the lower Danube.

Canada

The expansion of wheat growing has been particularly noticeable in Canada, reaching a maximum of 474,199,000 bushels in 1923, whereas in 1917 Canada raised but 234,000,000 and in 1918 but 189,000,000 bushels of wheat. Canada is particularly favored by a vast amount of unutilized land, a large part of which is probably more suitable for grain growing than for mixed farming. One estimate, the most extreme, by a prominent English authority, places the maximum wheat acreage in Canada at 80,000,000 acres, but no doubt on the whole the most desirable land is already under cultivation.

While several cost studies have indicated that the cost per bushel of production Spring wheat in Canada is lower than in the United States, cost of production (not including land rent) does not entirely determine the trend. There are other important factors to be considered in studying Canada's future as a wheat producer. Low freight rates on Canadian railways, gives grain and grain products a much lower rate than is enjoyed by the American competitor and likewise discourages the introduction of mixed farming. In addition the Canadian grower is much closer, on an average, to water transportation than is the producer on this side of the line. Another factor of which little is heard, but which is of much importance, is the question of markets for the products of mixed farming in Canada. The natural and most available export markets are the large urban centers of the United States, but tariff barriers intervene, with the result that Europe becomes the more important market for Canadian agricultural products. Here again wheat has an advantage over other products because of its ease and cheapness of transportation. Under the conditions which prevail it may, therefore, reasonably be expected that the production of wheat in Canada will gradually increase for some time to come.

Southern Hemisphere

Somewhat similar conditions prevail in the Southern Hemisphere. In both Argentina and Australia the wheat areas are comparatively near cheap water transportation. In Argentina the longest haul by rail is but 361 miles while in Australia the distances by rail are also comparatively short. Both countries are mainly agricultural with Europe the principal market for surpluses. Wheat production is showing a steady increase in acreage and in production and as but comparatively little of the crop is consumed at home the two principal exporting countries of the Southern Hemisphere are important factors in the international commerce in wheat.

Russia

Prior to the World War, Russia was the largest producer and also the largest exporter of wheat in the world. For the five-year average of 1909-1913, on an acreage of 74,209,000 Russia produced 758,941,000 bushels of wheat and exported 164,000,000 bushels. The next largest competitor, the United States, for the same period on an acreage of 47,097,000 produced an average crop of 690,108,000 bushels and exported approximately 105,000,000 bushels. Russian production suffered severely during and after the war, but recovery has been steady and in 1926 Russia produced 86,481,000 bushels and in 1927 749,560,000 bushels. Recovery in the export field, however, has not been rapid, a maximum of approximately 49,000,000 bushels, according to preliminary figures, having been reached. Recovery of Russia's position in the export trade has been retarded by lack of transportation, difficulties in facilitating international commerce, and other problems which have confronted the Soviet administration.

Russia is a land of vast agricultural possibilities and is close at hand to the principal importing countries of Europe and it is reasonable to assume that Russia eventually will regain an important position in the export trade, thus adding another strong competitor for the American producer in that field.

Other Producing Countries

Other producing countries have shown no particular change during recent years. Production in India has remained practically stationary, but a slight increase in per capita consumption has resulted in a slight decrease in exports. The same is approximately true of the principal European producing countries.

Nature of American Wheat Exports

Our wheat exports are not a unit. We have two broad classes, one of which may be termed principal, the other incidental. These two kinds of exports have different commodity meanings and somewhat different bearings on wheat prices.

In a particular year, the crop may be large enough and good enough to enable us to export considerable representative wheats; but for the most part we export wheat which does not meet our requirements—wheats grading variously low from our standpoint, although good enough for the import trade of many countries. Sixty per cent of the wheat exported in the fiscal year 1923-24 was of the discount type. In effect, this is a marketing of the culis. This point must not be lost sight of when we compare exporters with wheat exporting structural steel, typewriters and finished goods. We market finished goods made to specifications of the foreign purchases; but we do not regularly market rejected products of our factories after the American requirements have been fulfilled.

Domestic consumers outbid exporters for the better grades so that as a rule the best of the harvest is used here and the poor grades are left for export. At times top grades of Canadian wheat are imported to improve milling mixtures while ordinary Hard wheat is being exported. Only general information is available concerning the classes of wheat used but on the average nearly all the good quality Hard Red Spring and Soft Red Winter wheat is consumed in this country. Large amounts of Hard Red Winter also go for domestic needs and part of the Durum harvest is required for macaroni and other products, but the production of these two classes of wheat in most years is well in excess of domestic requirements and they, together with White wheat from the Pacific Northwest, make up the bulk of the exports of United States wheat as grain.

United States exports of wheat and its productions have equaled about 198,000,000 bushels yearly for the past five years. These have gone to countries in all parts of the world but chiefly to Europe and the Orient. Counting flour and other products in with wheat out of every eight bushels about six are shipped to Europe, including the shipments through Canada. Almost another bushel out of eight goes to the far East. The rest is scattered widely from Labrador and Iceland on the north through the tropical regions of Brazil, Belgian Congo, and Java to New Zealand and South Africa on the south. Fair quantities are sold to Cuba, Mexico and countries of Central America and South America, while smaller

July 15, 1928

amounts are taken by a number of African countries. A little is shipped even to such important wheat exporting countries as Australia and Argentina, doubtless largely for seed and for special uses.

In contrast to the relative stability of domestic requirements, the exports of wheat and its products fluctuate sharply, reflecting both the changes in the domestic supply of wheat and the varying intensity of foreign demand. Within the past five years exports of wheat as grain have ranged from a little over 63,000,000 bushels up to over 195,000,000 bushels. Exports of flour, macaroni, bread and other products show less variations than those of wheat, partially because a larger share of these products are taken by countries which do not produce wheat and which require relatively constant quantities of wheat products. The established trend enjoyed by certain brands of flour and other products also tends to reduce the variations in the trade of those products as does the fact that part of the flour entering into export trade is "clear" flour. This is a by-product of patent flour milling and is not in active demand in this country. Exports of flour have ranged from 9,541,000 to 17,253,000 barrels in the past five years. Exports of other products are relatively unimportant and show about as wide a variation as those of flour.

Putting it another way about 75 per cent of the exports go to the most important buyers, countries whose takings averaged over 2,000,000 bushels of wheat and flour annually during 1922-26. The remainder, approximately 25 per cent, is distributed among approximately 85 countries in lots ranging from about 1,600,000 bushels annually to Panama down to 95 bushels to Ceylon. Six countries averaged from 1,600,000 down to 1,200,000 bushels while 10 more ranged from 978,000 to 500,000 bushels and 25 took between 500,000 and 100,000 bushels annually.

England is by far the heaviest buyer of United States wheat and its products. About 32,000,000 bushels of wheat and its equivalent in flour were destined for that country annually during the five years 1922-26. This compares with about 17,000,000 bushels yearly for Italy and the Netherlands which are in turn the next largest buyers. Around 12,500,000 bushels, chiefly in the form of flour, were shipped to China, Hong Kong and Kwangtung. Takings by Belgium totaled about 9,000,000 bushels, while the 8,000,000 bushels shipped to France on the average equaled the exports to Japan and Chosen. Next in order comes Cuba with over 5,000,000 bushels annually, the Irish Free State with nearly 4,000,000 bushels, and Brazil and Greece with an average of a little over 3,500,000 bushels each of wheat and flour. Mexico accounts for approximately 3,000,000 bushels as does Scotland while the Philippine Islands were sent around 2,500,000 bushels yearly for the period. In addition about 30,000,000 bushels on the average were sent to Canada practically all for shipment to Europe.

Some countries buy United States wheat with its products mostly in the form of grain, while others take mostly flour. Italy, Belgium, France, Spain, and Portugal take nearly all their requirements of United States as wheat with relatively little flour. This is also true of Algeria and Tunis in Africa and of Japan in the Orient. Much more wheat than flour is taken by England although fair quantities of flour and of other products are also shipped to that country. On the other hand, Norway, Poland, Denmark and Finland purchase much more flour than wheat from the United States and so do most of the countries of Central and South America and a number of those of Africa. Shipments to China, Hong Kong, and Kwangtung likewise consist principally of flour with relatively small amounts of wheat and exports to most of the islands chiefly made up of flour rather than of wheat.

All the wheat shipped to a country, however, may not be consumed there. So while the imports to these countries show the movement of wheat on the whole, some adjustments may be needed in considering the consumption of an individual country. Part of the wheat shipped to some countries may be re-exported because of a favorable combination of local and ocean freights, better markets, or other conditions. Or part of the flour milled from imported wheat may be exported by some countries or an occasional cargo may be diverted to a more promising market while it is on passage.

Friday afternoon was devoted to a trip through what is probably the world's largest steel plant, the Gary works of the United States Steel Corporation. This was arranged by courtesy of the Gary Chamber of Commerce and was a special tour for only those who were attending this convention, exclusive tickets having been printed and distributed to identify those who were eligible.

The meeting broke up late Friday.

NORTHWESTERN DEALERS MEET

On June 21, the fourteenth annual convention of the Northwestern Grain Dealers Association assembled at Glacier Park Hotel, Glacier Park, Mont. Paul R. Trigg, Great Falls, occupied the chair in the absence of President G. E. Paulson. Among those who addressed the opening session were Secretary S. Swearingen, Great Falls; P. A. Lee, secretary of the North Dakota Farmers Grain Dealers Association; Commissioner of Agriculture A. H. Bowman, Helena, and others.

Governor John E. Erickson addressed the meeting on the second day, and Jay G. Diamond, state agricultural statistician, discussed "Crop Statistics and Forecasting." Smutty wheat was one of the main topics on the afternoon of the second day.

The Resolutions Committee, which consisted of W. E. Cameron, Great Falls; L. E. Brown and George K. Labatt, Minneapolis, brought in the following resolutions, which were adopted by the meeting:

Whereas, The fourteenth annual convention of the Northwestern Grain Dealers Ass'n, held at Glacier Park Hotel, Mont., June 21 and 22, is now about to adjourn. Be it resolved:

Appreciation and Thanks

1. That we thank Mr. Paul Trigg for the very successful and able manner in which he has presided over this convention, and the resolutions committee recommends that the convention here assembled show its hearty appreciation of his wonderful ability as a presiding officer by a rising vote of thanks.

2. That we are indebted to the management of the

Glacier Park Hotel for the very efficient service and hospitality extended to the Association during its session.

3. That we appreciate the attendance of those who came from other states and believe that the benefits derived from this mutual meeting will be lasting.

4. That the Association is grateful to all who were in charge of arrangements and the bringing together of the speakers for this very successful meeting.

5. That we very much appreciate the presence and honor of having had with us the governor of the state of Montana, the Hon. John E. Erickson, whose address should be an inspiration to all who heard it.

6. That the attendance of A. H. Bowman, commissioner of agriculture, and W. T. Giese, chief of Grain Standards and Marketing, and J. G. Diamond, state agricultural statistician, has added greatly to the success of our convention and that the grain dealers recognize the splendid services which these men are rendering through their departments toward effecting a harmonious and fair supervision of the problems arising in connection with the grain trade.

7. That we acknowledge with great appreciation the presence of E. J. Bell, Jr., assistant of agricultural economics of the University of Montana, and we appreciate very greatly the very able address on the question of protein and we heartily recommend that every member of this Association obtain the bulletin which is shortly to be issued by the Montana State College, presenting in full the findings of Mr. Bell in regard to protein as a market factor in wheat handling and that they give it the widest circulation possible among their farmer customers, because it is the sense of this Association that great benefit will accrue from a thorough understanding by the farmers of this rather complicated subject and will serve to promote a more harmonious relationship between the wheat producer and the marketing agencies.

Regrets

9. That we greatly regret that due to ill health Mr. Frank E. Darrat of the *Grain Bulletin* of Minneapolis was unable to be present and we extend to him our kindest regards and best wishes and hope that he may be with us next year.

Ask Law to Compel Collection of Storage Charges

10. That the charges of the storing and insurance of grain carried in country elevators for the account of the owner has been determined and fixed by the laws of the state of Montana as a legitimate and just charge for a service rendered and as such these storage charges should be collected as fixed by law in all cases without discrimination or exceptions, and it is the sense of this Association that the state of Montana pass a law making the collection of such charges compulsory and that the members of this Association work wholeheartedly through their various lawmakers to have such a law enacted at the next meeting of the legislature. Be it further

Appreciate Work of County Agents

Resolved, That the Northwestern Grain Dealers Association is keenly appreciative of the very splendid work being done by the county agents of Montana and that it is the desire of the Association to assist in this work at all times and in all ways to the greatest possible extent. Be it further

Will Employ Aggressive Secretary

Resolved, That trade associations have never filled a more important function in trade activities than they do at the present time and that it is of vital importance to the grain trade of the state of Montana that every possible effort be made to extend the activities of the Northwestern Grain Dealers Association to the end that it may include in its active membership all forms of country grain marketing agencies comprising independent dealers, line companies, farmer elevator and co-operative elevator associations and the milling trade, as well as the commission merchants with personal representation in the state. And we strongly recommend that immediate steps be taken to employ an aggressive, competent paid-secretary to bring about an increase in membership.

The Nominating Committee (comprising W. G. Kirkpatrick, E. T. Pettersen and G. E. Patton, Great Falls, and G. E. Paulson, Cascade) offered the following officers in nomination, and they were unanimously elected: President, L. E. Green, Wilsall; vice-president, S. B. Fairbanks, Hobson; treasurer, A. J. Maly, Great Falls. Directors for one year, E. T. Pettersen, Great Falls; for three-year term, George K. Labatt, Minneapolis; A. J. Maly, W. T. Greely, W. G. Kirkpatrick and Dan J. Kerby, Great Falls.

The convention adjourned after the election of the new officers.

NEBRASKA GRAIN DEALERS ORGANIZE

At a meeting in the Lincoln Hotel at Lincoln, Neb., on June 29 and 30 of about 40 terminal and country grain dealers of Nebraska, was organized the Nebraska Grain Dealers Association. This association is to include not only independent country grain elevator operators, but also farmers co-operative companies, terminal grain dealers, and millers. Of interest in this connection is the fact that for 22 years there has been no grain dealers association in this state (with the exception of farmers co-operative association) because of a court order issued at that time. A recent legal decision states that this order was not permanent and at once steps were taken to organize an association to promote the interests of the grain trade in Nebraska. At the Lincoln meeting articles of association were adopted and officers elected as follows: President, T. B. King of the T. B. Hord Grain Company of Central City; first vice-president, Roland F. Ireland of Lincoln; second vice-president, E. L. Brown of Chester; directors, Ross Magowan of Gordon, V. C. Wilson of Holdrege, J. P. Larson of Laurel, Bert Larson of Kimball, C. S. Venner of Havelock, and A. L. Burroughs of Rockford. Officers will also serve as ex-officio members of the Board of Directors. It will be noticed that all sections of the state are represented on the directorate, and

that state farm organizations are also represented. At a banquet attended by nearly all those who came in for the meeting, a great deal of enthusiasm for the new association was displayed.

FATHER AND SON HEAD COAST DEALERS

Richard J. Stephens, of Spokane, Wash., was re-elected president of the Pacific Northwest Grain Dealers Association, meeting in Walla Walla, Wash., last month. A. M. Chrystall, of Portland, Ore., was elected first vice-president and Lyle Cabbage, of Almira, Wash., second vice-president. Richard H. Stephens, son of the president, was reappointed secretary, and the senior Mr. Stephens also fills the post of treasurer.

The grain men at the convention agreed to try to secure uniform trade rules so that interior grain buyers can better regulate their business. This was the proposal of A. E. Kelly, of Pullman, Wash. W. A. Schoenfeld, representing the United States Department of Agriculture, told of conditions in European grain markets. European purchasers of grain are mostly confined, he said, to Great Britain, the Netherlands, and Italy.

EASTERN FEED MEN MEET

At the Hotel Statler, Buffalo, N. Y., on June 27 and 28, the Eastern Federation of Feed Merchants held its annual convention. Talks were made by various experts, and among the subjects covered were the following: Manufacture and Grading of Cottonseed Meal, by Emery L. Cocke, Atlanta, Ga.; The Radio as a Business Builder, by W. A. Stannard, secretary; Advertising the Retail Feed Business, by D. K. Steenbergh, secretary of the Central Retail Feed Dealers Association, Milwaukee, Wis.

Those in charge of the arrangements included: Max F. Cohn, general chairman of the Buffalo Committee; M. C. Burns, Entertainment Committee chairman; E. W. Mitchell, Transportation Committee chairman; C. C. Lewis, Finance Committee chairman; E. B. Collard, bridge, games; George E. Pierce, golf. President H. C. Elwood of the Buffalo Flour Club was the toastmaster at the banquet which was given the feed men.

CONVENTION CALENDAR

August 16-17.—Michigan Grain, Feed and Hay Dealers Association, Hotel Olds, Lansing, Mich.

August 20-22.—Thirty-fifth annual convention of the National Hay Association, Fort Wayne, Ind.

August 23-24.—Annual convention of the New York Hay and Grain Dealers Association, Syracuse, N. Y.

September 24-26.—Eleventh annual convention of the Terminal Grain Weighmasters National Association, Hotel Statler, Boston, Mass.

September 24-26.—Twenty-seventh annual convention of the Chief Grain Inspectors National Association, Hotel Statler, Boston, Mass.

September 24-26.—Thirty-second annual convention of the Grain Dealers Association, at the new Hotel Statler, Boston, Mass.

September 24-26.—Annual convention of the United States Feed Distributors Association, at the Hotel Statler, Boston, Mass.

October 30-31 and November 1.—Silver anniversary convention of the Nebraska Farmers Grain Dealers Association, Hotel Rome, Omaha, Neb.

MONTANA FARMERS GRAIN DEALERS MEET

The second annual meeting of the Farmers Grain Dealers Association of Montana was held at Havre, Mont., on June 18-19. The grain dealers, numbering about 150, were welcomed by Mr. Somers, the mayor of Havre. Governor Erickson made an interesting talk at the second session of the first day, which was followed by a round-table discussion on "Compulsory Storage—Do we want it by order of the Secretary of Agriculture or by legislative enactment."

It was decided to hold a three-day session next year instead of the customary two-day annual meeting.

Leon McNicol, Havre, and F. F. Lewis, Brady, were elected for terms of three years as directors. At a directors' meeting held after the close of the convention, T. J. Larson was re-elected president; F. F. Lewis, Brady, vice-president; Karl Hovland, Whitetail, secretary. Leon McNicol, H. H. Ames, Scobey, and T. J. Larson, Outlook, were appointed members of the Executive Committee. F. F. Lewis, Brady, W. F. Cowan, Box Elder, and P. A. Lee Grand Forks, N. D., were named on the Legislative Committee.

A banquet was given for the grain dealers on the evening of the second day. After the banquet the meeting adjourned until next year.

FIELD SEEDS

AMERICAN SEEDSMEN MEET

The forty-eighth annual convention of the American Seed Trade Association, held June 27-29 at the Hotel Stevens, Chicago, Ill., was well attended and great interest was manifested in every session. The officers elected were: President, L. B. Reuter, New Orleans, La.; first vice-president, Waldo Rohmert; second vice-president, Walter D. Steele; secretary-treasurer, C. E. Kendel, who has held that office for 25 years; assistant secretary, G. F. Bradley. Peter Hollenbeck of Chicago was elected as an honorary member of the association.

F. S. A. HOLDS ANNUAL MEET

A good attendance marked the twentieth annual meeting of the Farm Seed Association of North America held on June 26-27 at Chicago.

Officers for the ensuing year were elected as follows: President, Linden King; members of the Board of Directors, Roy Edwards, E. F. Crossland and A. H. Flanagan. The executive secretary of the association is A. J. Ogaard, and the secretary-treasurer is Clarence K. Jones. Clifford Corneli was elected vice-president.

STAINING SEED FOR NEW ZEALAND

The seed of cocksfoot, lucerne and White Clover cannot be shipped into New Zealand without being stained and accompanied by a proper certificate to that effect. Not less than 1 per cent of each package of such seed shall be stained prior to importation with a red coloring matter, which is either an alcoholic solution of saffranin or a specially prepared and effective fluid seed-staining dye. Staining must be done by mixing 1 per cent of the bulk with the stain and then blending the stained parcel with the bulk lot.

BROME GRASS AND SWEET CLOVER CERTIFICATION

Brome grass and Sweet Clover growers in Canada were given the privilege this year of having their fields inspected and their seed certified. In the case of brome grass, fields free from couch grass are being certified.

For Sweet Clover certification, freedom from wild mustard is necessary for certification. Out of 100 control samples of Sweet Clover tested by the Government, 35 were free from all noxious weeds, while 27 of the same hundred contained wild mustard.

SEED VERIFICATION CONFERENCE

A meeting of the Seed Verification Service Conference was held June 25 at Chicago, at which much of interest to those enrolled or contemplating enrollment in the service was discussed. Two of the principal items were the kind of seeds to be verified next season and the proposed changes in the amount and method of assessment of fees.

The majority of those present favored the verification of Alfalfa, and were opposed to continue the verification of Red Clover. However, state agronomists in the leading Red Clover seed consuming states indicated the importance of verifying the origin of Red Clover seed.

The Seed Council of North America two days later concurred informally in the opinions prevalent at the conference.

CRIMSON CLOVER SEED MOVEMENT SLOW IN STARTING

Early movement of Crimson Clover seed from the hands of growers has been slower than last year, according to the United States Bureau of Agricultural Economics. Harvesting was later than last year and hulling was hampered by rainy weather. Growers did not sell freely and up to June 26, about 5 per cent of the crop or less had been sold, compared with 15 per cent on a corresponding date last year.

Shippers in Tennessee expected good quality excepting in districts where the seed had weather-stained due to excessive rains. Prices offered growers in Tennessee ranged mostly \$14-\$15 per 100 pounds (average \$14.50) for country-run and \$15-\$16 (average \$15.25) for cleaned seed.

In Europe the crop was likewise expected to be later than last year. Prospects for the crop in France continued favorable. No seed was imported from Europe during June this year or last year. Imports for the fiscal year ending June 30 were the smallest on record covering the past 16 years and considerably below the 10-year average. They

amounted to 1,346,100 pounds, compared with 2,385,000 in 1927, 5,765,000 in 1926 and 4,834,000 in 1925.

Wholesale prices for old-crop seed in eastern markets on June 30 were mostly unchanged from those of the month before and remained the highest since 1918. Prices ranged mostly \$18-\$19 per 100 pounds compared with \$16.50-\$17 last year and \$8-\$8.50 two years ago.

PROGRESSIVE SEED FIRM IN NEW QUARTERS

With a motto reading "Punctuality, Sterling Quality, Courteous Treatment" as the basis for all its dealings, The Meyer Seed Company of Baltimore, Md., has experienced remarkable success in the 18 years since it was organized. In fact so great has been its progress that it found it necessary a short time ago to go into larger quarters. Today the firm is located at 34-36 Light Street, Baltimore, with 10,600 square feet of floor space

amounted to 1,346,100 pounds, compared with 2,385,000 in 1927, 5,765,000 in 1926 and 4,834,000 in 1925. Wholesale prices for old-crop seed in eastern markets on June 30 were mostly unchanged from those of the month before and remained the highest since 1918. Prices ranged mostly \$18-\$19 per 100 pounds compared with \$16.50-\$17 last year and \$8-\$8.50 two years ago.

KENTUCKY BLUEGRASS SEED CROP SMALLEST IN 11 YEARS

The production of Kentucky bluegrass seed is expected to be the smallest since 1917 and only about 15 to 20 per cent as large as the 1927 crop. The decrease was due somewhat more to the big reduction in the acreage stripped than to the marked decline in yields. The United States Bureau of Agricultural Economics estimates that the crop in Kentucky, Missouri, Iowa, Nebraska and Kansas amounted to 275,000 to 350,000 bushels of rough, cured seed, compared with approximately 1,850,000 last year, 2,050,000 in 1926, and 960,500 bushels, the average annual production in these states during the 10-year period 1918-27.

Severe freezes during the past winter and spring



INTERIOR OF THE MEYER SEED STORE, BALTIMORE, MD.

in addition to the store, which enables it to handle its stocks nicely and to take care of its increasing business to greater advantage.

When the question of moving came up for consideration, the officers wanted to move as quickly and with as little interruption of business as possible. They decided on quarters adjoining the old one at 32 Light Street. Then they received permission from the owner of the buildings to cut a hole in the wall on the second floor and through this everything went next door and placed on the different floors without anyone knowing that the Meyer Seed Company was changing its headquarters. Needless to say this was a great convenience and time saver.

The Meyer Seed Company handles seeds, bulbs, plants, horticultural and poultry supplies, and baby chicks. John F. Meyer is president and general manager. It was established in 1910 and is a member of the American Seed Trade Association.

SMALLER SEED OAT AND RYE SUPPLIES IN THE SOUTH

Supplies of seed oats in the South, except in southern Oklahoma and northern Texas, are expected to be quite a little shorter than last year, according to the United States Bureau of Agricultural Economics. Important districts in South Carolina, North Carolina, Georgia, Alabama and Tennessee report smaller production. Losses from winter-killing were severe in these states and the cool, wet spring delayed the harvest. The quality of the crop is expected to be good, and better than that of last year.

Less seed rye, particularly of the Abruzzi variety, than last year will be available in the producing

that did so much damage to the Winter wheat and rye crops in Kentucky and adjoining states also were largely responsible for thinning the stands and retarding the growth of Kentucky bluegrass in that state. In the western district the cold, dry weather in the spring, particularly in April, was generally believed to be the most potent factor in reducing yields. Doubtless the heavy seed crop in this district last year tended to sap the strength of plants this year.

Stripping began eight or ten days later than last year in Kentucky but about the same time as last year in Missouri. As a matter of fact, stripping started earlier in the latter state than in Kentucky, which is rather unusual. Rains interfered with stripping, but because of the small crop, operations are expected to be completed in less time than last year.

The quality of the crop is expected to be inferior to that of last year because the thin, short stands permitted weeds to spread and almost to crowd out the bluegrass plants in some meadows. The seed probably will be lighter in weight than usual, as heads generally seemed to be thin.

ORCHARD GRASS SEED CROP LARGER

Orchard grass seed production is expected to be about one-fifth larger than the small crop of last year. The United States Bureau of Agricultural Economics estimates that Kentucky, Missouri, Virginia, Indiana, Ohio and Arkansas produced approximately 235,000 bushels, compared with 195,000 last year and 395,000 two years ago. The increase in the production in Missouri and Virginia more than offsets the reduction in Kentucky. In the

(Continued on Page 56)



ELEVATOR AND GRAIN NEWS

EASTERN

C. A. Pease & Co., of Hartford, Conn., have dissolved. Both the partners died recently.

The DeWitt-Tucker Company of Skaneateles, N. Y., has sold out its grain, hay and produce business.

To do a business in grain, feed, etc., the A. R. Hopkins Corporation has been incorporated at Portland, Maine. Its capital stock is \$100,000.

A plan is being considered by the W. P. Whittemore Company, dealers in grain, feed, etc., at Roslindale (Boston Station), Mass., for adding coal and building materials to its business.

Prentiss, Brooks & Co., Inc., have incorporated at Holyoke, Mass. The company will handle grain and feed. The incorporators are William L. Morse, Wendall H. Bradford and Lawrence G. Brooks.

Albert J. Thompson of Wycombe, Pa., has just completed the installation of a Randolph Direct Heat Drier in his mill, so as to be able to handle the wheat as it comes from the threshing machine.

The George Hanley Store at Warren, Maine, has been bought by R. E. Harmon, formerly of Bridgton, Maine. It will be known as the Warren Grocery Company and will handle grain, feed and flour.

ILLINOIS

A new elevator of 15,000 bushels' capacity is to be built at Randolph, Ill.

An addition is to be built for the Farmers Elevator Company of Secor, Ill.

A coal shed is being built at Osman, Ill., for the Farmers Elevator Company.

A new warehouse is to be built at Denver, Ill., for the Denver Co-operative Elevator.

A modern office building is to be put up at Harmon, Ill., for the Farmers Elevator Company.

The Missal Grain Company of Missal (p. o. Streator), Ill., has installed a truck dump and truck scale.

Gasoline and oil are to be added as side lines for the Farmers Co-operative Grain & Supply Company of Lisbon, Ill.

Sam Kastner has bought the Rapatee Farmers Co-operative Association at Rapatee, Ill., and will operate both elevator and mill.

The elevator of the Farmers Elevator & Mercantile Company of Winchester, Ill., has been overhauled. J. H. Fuller is manager.

The grain, coal, and feed business of Herman Hattendorf at Ontarioville, Ill., has been bought by Herman Lichthardt of Ontarioville.

A modern coal storage shed has been installed for the Plano Farmer Co-operative Grain Company of Plano, Ill. L. A. Sears is manager.

D. W. Jones has bought the 60,000-bushel elevator at Mansfield, Ill., from the Farmers Elevator Company. The farmers built the house in 1918.

An electric motor has been installed, replacing gasoline engine, for the Co-operative Grain Company of Serena, Ill., of which E. H. Dolder is manager.

A new 10-ton auto truck scale has been installed at the elevator of the Big Rock Farmers Co-operative Company of Big Rock, Ill. Seth D. Abbott is manager.

A new coal storage shed to have four bins will be erected for the Farmers Elevator Company of Ransom, Ill. It will be equipped with a modern coal conveyor.

The Astoria Farmers Grain & Service Company of Astoria, Ill., has been dissolved and a new company organized, to be known as the Farmers Elevator of Astoria.

An interest in the Ancona Grain Company at Ancona, Ill., has been bought by Conrad Linder of Streator. This includes a large stock of cement, coal and lumber.

The elevator of the Farmers Grain Company of Greenview, Ill., has been leased to the Fernandes Grain Company of Springfield and E. E. Rousey will be in charge.

The Shultz and Bump Elevators at Keensburg and Cowling in Wabash County, Ill., have been bought by Fred French. The elevators will be consolidated with B. French & Sons' elevator at Belmont,

owned and operated by B. French, Jr. The recently acquired elevators will be known as French Bros., but the Belmont elevator will be conducted as B. French & Sons.

The Hinckley Grain Company of Hinckley, Ill., has remodeled and rebuilt its 1,000-ton coal pocket and installed modern machinery. The elevator has been overhauled and two truck dumps installed in it recently.

The Burlington Elevator at Galva, Ill., also known as the Heflebower and Peterson Elevator, has been bought by Frank Reynolds of Lee, Ill. Mr. Reynolds has been in the grain buying business for 25 years.

L. M. Walker has bought the Gilman, Ill., grain business from F. W. Stine & Co. Mr. Walker will leave Onarga where he has been living for some time and will make his home in Gilman. Mr. Walker also has had a grain business at Ridgeville for some time.

The Hamman Grain Elevators in Gibson City and Derby, Ill., have been sold to Lawson Tjardes, owner of the elevator at Harpster. E. E. Hammon bought the elevators nine years ago. The Gibson City elevator has a capacity of 40,000 bushels; and the Derby Elevator, 35,000 bushels.

The elevator of W. R. Turnbull at Lowder, Ill., which burned is to be rebuilt. Mr. Turnbull is building a 20,000-bushel elevator at Maxwell (Waverly p. o.), which was completed July 1. He bought out the Central Illinois Grain Company at Maxwell and is now operating elevators at Waverly, Maxwell and Rohrer.

Additional machinery is to be installed for the Plain Grain Company at Frontenac, four miles from Aurora, Ill. The following machinery will be installed: 30-inch modern attrition mill equipped with two 50-horsepower electric motors, modern horizontal ear corn crusher, air lift truck dump, two 7½-horsepower totally enclosed and self-ventilating motors, and a 15-horsepower motor for each crusher.

IOWA

The Huntting Elevator at Sioux City, Iowa, which burned, has been repaired.

A new elevator is to be built at Kiron, Iowa, for the Farmers Lumber & Coal Company.

The Farragut, Iowa, elevator of the Nebraska-Iowa Grain Company has been closed.

The charter of the Farmers Grain Company of McCallsburg, Iowa, has been renewed.

E. L. Dwyer is now with the Davis Grain Company as sales manager at the Fort Dodge, Iowa, office.

The elevator of the Industry Elevator Company at Industry (Ft. Dodge p. o.), Iowa, is being repaired.

The J. C. McJunkins business at Onawa, Iowa, has been bought by John Noble. He will deal in feeds, oils, etc.

The Davis Grain Company of Fort Dodge, Iowa, has bought the Independent Farmers Elevators at Nemaha, Iowa.

The elevator of C. M. Varney at Dickens, Iowa, has been bought by G. A. Cady who has been located at Sioux Rapids.

A 25,000-bushel elevator and annex, is being built for the North Iowa Grain Company at Fernald, Iowa. It will be ironclad.

The Godden & McDonald Elevator Company of Algona, Iowa, has dissolved the partnership. Mr. Godden is farming and Mr. McDonald is operating the business.

The Buckingham Grain Company of Buckingham, Iowa, has made improvements on its equipment, including a 10-ton scale for weighing truck loads, and new truck dump.

The Des Moines Elevator & Grain Company has taken over the elevator at Lohrville, Iowa, and is operating it. Davis Bros. & Potter operated the plant under lease until July 1, of this year.

The Buckingham Farmers Elevator Company of Buckingham, Iowa, has bought the coal, sand and cement business of the Page Lumber Company and will install new scale and electric truck dump.

J. H. Spike has bought the grain and coal business of the estate of W. A. Bryant & Sons Com-

pany at Vinton, Iowa, which has for some years been leased by Spike & Co. The elevator will be continued under the old name.

Arthur Sievers of Liddendale has bought the grain elevator business of H. J. Mighell at Carroll, Iowa. He took possession July 1. Mr. Mighell has bought the E. E. Wentz Elevator at Lake City, Iowa.

The old elevator at Elwood, Iowa, has been bought by George McDonald, who is razing it. The machinery was retained by Mr. Phelps the old owner, who has removed them to his Lost Nation elevator.

The Terminal Grain Corporation of Sioux City, Iowa, is planning for the erection of an addition to its elevator storage which will increase the capacity 500,000 bushels. The addition will be ready, it is expected, by October 1. The addition will give the Terminal company a total capacity of 1,250,000 bushels.

INDIANA

Outside interests have bought Stephen's Elevator at New Harmony, Ind.

The Farmers Elevator Company of Brazil, Ind., is to be sold. Samuel Stigler is receiver.

The Edgerton (Ind.) Grain & Coal Company is under the management of W. S. Bricker.

Improvements are being made to the elevator of J. M. Walker & Son at Middletown, Ind.

The Farmers Elevator Company of Monticello, Ind., has installed a new wagon and truck dump.

The elevator at New Waverly, Ind., has been bought by C. F. Cripe. He will operate under his own name.

A grain elevator at Rich Station, west of Marion, Ind., has been bought by John D. Keifer, owner of a feed store at Elwood, Ind.

The elevators of Frank A. Wright at Brookville, Ind., have been sold to Mr. Clark of Rushville. Also elevators at New Salem and Laurel.

Improvements are being made to the elevator of the Myers Grain Company of Denver, Ind., and a new concrete coal bin is being built.

The Pendleton Feed & Fuel Company at Pendleton, Ind., has been bought by Pritchard & Rafert of Fortville, who some time ago bought the Pendleton Elevator.

J. E. Augspurger is now manager for the Woodburn Equity Exchange of Woodburn, Ind. He was formerly manager of the Edgerton (Ind.) Grain & Coal Company.

The preferred capital stock of the Crabbs-Reynolds-Taylor Company of Crawfordsville, Ind., has been increased to \$900,000. The common stock remains at \$700,000.

Seeger & Betts have dissolved. They have conducted elevators at Marshfield, Johnsonville, Hedrick and Thomas Station, Ind., for 12 years. Ura Seeger has bought the Betts' interest, and hereafter the business will be run as Ura Seeger.

THE DAKOTAS

The Farmers Elevator at Grandin, N. D., has installed a new engine.

The Farmers Interstate Grain Company of Drayton, N. D., is installing a new leg.

The Farmers Elevator Company of Tunbridge, N. D., has built a new elevator there.

L. A. Larson is buying grain at Wabek, N. D., for the co-operative elevator there.

The elevator of the Selfridge Equity Exchange of Selfridge, N. D., has been remodeled.

A new elevator is to be built at Rapid City, S. D., for the Rapid River Milling Company.

Repairs have been made to the elevator of the Clement Equity Exchange of Clement, N. D.

The Northland Elevator Company of Kramer, N. D., has made improvements on its elevator.

A new leg has been installed and other repairs made to the Farmers Elevator at Mina, S. D.

The Dan Kelly Grain Elevator at Elkton, S. D., has been bought by George P. Sexauer & Son.

Farmers Union Grain Company is putting a new foundation under its elevator at Stratford, S. D.

Improvements have been made to the elevator of Geo. P. Sexauer & Son at Miller, S. D. The

company has built a new elevator at Agar and has bought the Farmers Elevator at Goodwin.

The Atlas Elevator Company has been overhauling its elevators at Ree Heights and Mansfield, S. D.

The Clyde (N. D.) Farmers Elevator Company has made several improvements to its elevator there.

The Occident Elevator Company has improved its elevators at Funston (Anamoose P. O.) and Bowdoin, N. D.

The Minnesota Elevators at Ryder, Selz, Hamburg, Glenfield, Norma, and Douglas, N. D., have been repaired.

New coal bins are being built to the Farmers Elevator at Finley, N. D. A new flour house also will be erected.

A distributor has been installed and improvements made by the Farmers Union Elevator Company of Rhame, N. D.

W. M. Rector has been made manager of the Farmers Equity Elevator at Glover, N. D. He has been in charge of his father's elevator at Cogswell.

A new 10-ton, 16-foot Fairbanks-Morse Scale, Strong-Scott Dump, etc., are being installed for the Farmers Union Grain Company of Randolph, S. D.

The T. C. Wildish Elevator at Elsberry (Rock Lake P. O.), N. D., is being repaired extensively. A new 1500-bushel automatic scale is being installed.

Bert Carley has resigned as manager of the Rolette, N. D., elevator of the Cargill Grain Company, and is now manager of the Farmers Elevator at Hong (York P. O.), N. D.

G. K. Temanson has resigned as manager of the Farmers Elevator Company at Underwood, N. D., and will go into business for himself at Underwood, S. D., as the Underwood Grain & Supply Company.

A new 30,000-bushel elevator is to be built at Sanborn, N. D., for the Andrews Grain Company. The elevator will have 15 bins, two legs, and will be motor driven. The power is furnished by Fairbanks-Morse Enclosed Motors.

The elevator of the Letcher Grain Company at Letcher, S. D., of which Nels Scott is manager, has been sold to George Lee of Naples, S. D. He took charge July 1. Mr. Lee has been manager of the Farmers Elevator at Naples for four years.

The Andrews Grain Company of Mekeon, N. D., is building a 25,000-bushel elevator. It will have one leg, Fairbanks-Morse Receiving Scale, Strong-Scott Dump, and 1500-bushel automatic scale. The power is furnished by a 15-horsepower engine.

A 30,000-bushel elevator is to be built at Emerald, N. D., for the Emerald Co-operative Elevator Company. Power is furnished by totally enclosed fan cooled motors. The equipment includes two legs, double distributor, roller bearings, 1,250-bushel automatic scale, Strong-Scott Dump and Cleaner.

The elevators of the Eagle Roller Mill Company have been improved. A new coal shed was installed at Aberdeen, S. D.; new Fairbanks-Morse Scale, Strong Scott Dump, etc., at Verdon; four bin coal shed at Turton; Fairbanks-Morse enclosed type motors and head drives at Raymond; new coal scale, at Castlewood; new coal shed at Estelline.

MINNESOTA AND WISCONSIN

A. B. Peterson has bought the grain elevator located at Doran, Minn.

Arthur Schuman is no longer with the Richardson Elevator Company of Elgin, Minn.

A new elevator is to be erected at Holloway, Minn., for the Holloway Market Company.

The Farmers Elevator Company of Benson, Minn., contemplates building a new elevator there.

George Vee is now manager of the Amboy, Minn., elevator of the Hubbard & Palmer Company.

New grain storage tanks are to be built at Fairfax, Minn., for the Fairfax Milling Company.

The E. J. Crane Company has let the contract for a new grain elevator and feed store at Medford, Wis.

The business of the Augina Bros., Fertig Company, grain, coal and general store dealers of Arcadia, Wis., is being sold.

A grain elevator and warehouse will be built at Greenwood, Wis., for the E. J. Crane Company of Chippewa Falls, Wis.

The present plant of the Milwaukee Grain & Feed Company of Milwaukee, Wis., is being improved by an addition.

The Independent Elevator and Coal Sheds at Pelican Rapids, Minn., have been bought by the Farmers Elevator Company.

Improvements and alterations are being made for the Clintonville Co-operative Elevator of Clinton-

ville, Wis. They have installed a feed mixer from the S. Howes Company with capacity of 1,000 pounds and operated by electricity.

New steel siding, new roof, etc., are being put on the grain elevator of J. L. Kleckner of the Kleckner Elevator Company of Neillsville, Wis.

The old elevator at Eyota, Minn., which burned is being torn down by E. E. Leitz. He will enlarge the old Vandusen Elevator and office.

An addition has been built to the elevator of the Farmers Elevator Company of Mountain Lake, Minn., which will serve as a warehouse.

The Nelson Elevator at Renville, Minn., has been bought by the Farmers Elevator Company. The property will be equipped with a feed mill.

New machinery, motors, etc., have been installed at Warren, Minn., for the National Elevator Company. General repairs have also been made.

The elevator at Carver, Minn., for years the property of John Funk, has been bought by the American Barley Company and will be converted into a poultry and dairy feed plant.

The elevator and business of the Speltz Grain & Coal Company at Lyle, Minn., have been sold to the Hunting Company, which will raze the elevator and build in its place, coal sheds, etc.

Herman Utoft has bought the property of the Lincoln Grain Company of Tyler, Minn., which has been vacant seven years. Remodeling is being done. The elevator and grinding machinery will be electrically operated.

E. N. Bradley has resigned as vice-president and general manager of the Globe Elevator Company of Duluth, Minn., and has moved to California. He also resigned as president of the Duluth Board of Trade Clearing Association.

The Ralston Purina Company of St. Louis, Mo., which last fall installed a Randolph Direct Heat Drier at the Checkerboard Elevator "A" at St. Louis, has placed its order for a Randolph Direct Heat Drier as part of its equipment in its new Minneapolis, Minn., plant. This drier will be of the continuous flowtype with automatic discharge and automatic temperature control.

Barnett & Record Company has just completed a concrete drier house for the Cargill Grain Company, Minneapolis, Minn., which houses a Randolph Direct Heat Grain Drier. There is a large bin for grain above the drier and a large bin for holding grain after it passes through the drier and cooler; also at the rear attached to this building, is the furnace room, making a complete drier unit which can be run independently of the elevators. This is one of the most modern drying plants in the country.

OHIO AND MICHIGAN

The grain elevator located at Thurston, Ohio, is now owned by E. L. Trope of Pleasantville.

An oat huller has been installed by the Dodson Elevator Company of Dodson (Brownsville P. O.), Ohio.

The plant of the Farmers Co-operative Company of Bryan, Ohio, has been equipped with a corn cleaner.

A new elevator is to be built at Melrose, Ohio, for the Theodore Burt & Sons. It is of concrete construction.

James Kerr is making plans to rebuild the elevator of the Kerr Hay & Grain Company at Melvin, Mich., which burned.

The elevator and mill of Edward H. Miner, at Vicksburg, Mich., have been bought by the Lowe Bros., who will remodel the elevator.

The Emery Thierwechter Elevator at Trowbridge (Graytown P. O.), Ohio, has been bought by the Ottawa County Co-operative Association.

The Russellville Supply Company has been incorporated at Russellville, Ohio, capitalized at \$5,000, to deal in grain, seed, hay and farm products.

Anti-friction bearings are being installed on the line shaft of A. B. Bullard & Sons at Shepardsville, Mich. This drives the feed mill of the elevator and replaces the plain bearings.

An interest in the Whisler Grain & Feed Company at Hillsboro, Ohio, has been bought by Clifford H. Stevenson from A. C. Prouty. He will be manager of the feed department.

The interest of Wm. E. Savage in the Cushman-Savage Company of Bath, Mich., has been sold. He is now manager of the seed department of McLaughlin, Ward & Co., of Jackson, Mich.

The White Bros. grain and hay and feed dealers of Scotts, Mich., has started the erection of a new garage and sales room. The company has just recently installed a new dustproof motor in its new seed plant.

Elevators at West Unity, Ohio, owned by Marcus Yager, and at West Unity, Ohio, and Waldron, Mich., owned by Rings & Grisier, have been merged and will be conducted as the United Grain & Fuel

Company. This firm is capitalized at \$40,000, with headquarters at West Unity. Marcus Yager, James A. Rings, W. Emerson Grisier are interested.

The building of the Conneaut Grain & Feed Company of Conneaut, Ohio, is to be remodeled. This work includes an office, store, warehouse and garage. A brick building, to be used as a warehouse, will also be erected.

The Piqua Milling Company has bought the Farmers Equity Elevator at West Alexandria, Ohio. J. F. Stewart, owner of elevators at Brookville and Englewood, is secretary of the milling company and concluded the deal.

The Bancroft Elevator Company of Bancroft, Mich., has rewired its plant, changing over from single phase, open type motors to three phase, fully enclosed, self-ventilated ball bearing motors. A magnetic spout will also be provided ahead of the attrition mill.

E. T. Cusenbolder and L. E. Vester have bought the elevator of the Miami Valley Grain Company of Sidney, Ohio, and will operate as a partnership under the name of the Miami Grain & Feed Company. They will remodel the plant and install a modern feed mill.

The plant of Chatterton & Son at Pompeii, Mich., has been completely motorized. The motors are of the fully enclosed, self-ventilated type, controlled with automatic starters. Also installed a hammer mill, and magnetic spout for removing tramp iron from stock to be ground. This change was also made to the company's elevator at Delwin, Mich.

The Rea Chenoweth Grain Elevator at London, Ohio, has been sold to Thomas and Benjamin Wood, owners of the F. J. Wood & Sons' grain plant there. The plant was built in 1876 by the late James Hamilton, who later sold out to the late A. Tanner and the late Robert F. Chenoweth. In 1896 Rea Chenoweth bought the interest of Mr. Tanner and the firm was operated until 1904 under the firm name of Chenoweth Bros. In 1904 Robert F. Chenoweth bought the interest of his brother and in 1909 Rea Chenoweth bought back the entire business.

WESTERN

The Mullen Grain Company is building a 60,000-bushel elevator at Ontario, Ore.

A new 4500-bushel elevator is to be built at Rupert, Idaho, for S. J. Hawkins.

A new warehouse is being built at Limon, Colo., for the Robinson Grain Company.

A concrete elevator for bulk grain is to be built at Waitsburg, Wash., for Lester Robinson.

A modern grain elevator is being built by Stanley Dee on his farm northwest of Haxtun, Colo.

A 15,000-bushel elevator is to be built at Albin, Wyo., for the Lexington Mill & Elevator Company.

A warehouse is being built at Peckham, Colo., for the Weld Grain Company, owned by Thomas & Stewart.

The Equity Co-operative Elevator Company of Dodson, Mont., has made extensive repairs on its elevator.

The Davidson Warehouse Company of Meridian, Idaho, is building additional room for grain and feed storage.

S. H. Hansen has resigned as manager of the Columbus Farmers Elevator Company of Columbus, Mont.

A 20,000-bushel elevator warehouse is being built at Dolores, Colo., for the Colorado Milling & Elevator Company.

Anthony Breen has bought the interest of his brother in the Custer Feed & Grain Company of Lynden, Wash.

A warehouse is to be built at Endicott, Wash., this year by the Roberts-Lukins Warehouse Company, grain dealers.

The Winter-Truesdell-Diercks Company is repairing its elevators at Poplar, Wolfe Point, Bainville and Four Buttes, Mont.

A building has been bought at Palouse, Wash., by William L. Blaine & Co., into which they will move their grain business.

The Washington Grain & Milling Company is building a new steel and concrete elevator at Davenport, Wash. It will cost \$25,000.

Farmers around Douglas, Wash., are organizing the Douglas Elevator Company. The company plans to build a 100,000-bushel elevator.

The W. O. Harris Elevator at Sterling, Colo., has been equipped with a scale, gear drive and dump, electric motor and distributor.

The grain, hay and feed business with warehouse, trackage and trucks of Swain & Co., at Enumclaw, Wash., have been sold to W. E. Brandenburg. The new firm will be known as the Gateway Feed Company.

The contract has been let by the Power Farmers Elevator Company of Power, Mont., for a 30,000-

bushel elevator. The building will be ironclad and equipped with a 20-horsepower Fairbanks Morse Engine.

The interest of M. A. Bristol in the Rathke Grain Company of Seattle, Wash., has been sold by him. He has gone into business for himself.

A grain elevator for bulk grains is to be built at Odessa, Wash., for the Perkins-Schoonover Grain Company, Inc. Its capacity is 50,000 bushels.

The Monarch Elevator Company of Billings has bought out John Rogers, Inc., Billings, Mont., and the Huntley & Shephard Company of Belgrade, Mont.

A modern elevator is to be built at Veteran, Wyo., for the Yoder Grain & Lumber Company. The equipment will include a one-horsepower engine, truck lift and distributor.

A new elevator of 25,000 bushels' capacity is being built at Brockton, Mont., for the Montana & Dakota Elevator Company. Fairbanks-Morse Motors will be installed.

Two large grain elevator tanks and a concrete warehouse will be built at Spanish Fork, Utah, for Joseph Hanson and P. O. Thomas. The capacity will be from 75,000 to 100,000 bushels.

The Valley Grain & Supply Company and the Lancaster Feed & Fuel Company of Lancaster, Calif., have merged as the Lancaster Feed & Fuel Company, Inc. T. K. Temple and Robert C. Bitte are president and vice-president.

The new 375,000-bushel elevator at Kelso, Wash., has been open for business. Commercial shipments will start the middle of July. S. A. McLean is manager of the Longview Grain & Elevator Company, which will operate the plant.

Extensive improvements are being made to the elevator of the Equity Co-operative Elevator Company of Dodson, Mont. New legs will be installed, with new motor power, double distributor, new dump scale, boot tanks and other repairs.

A new grain elevator is being built at Circle, Mont., for the Andrews Grain Company. This elevator will be equipped with one stand of legs, buckets, steel boot tank, manlift, 10-horsepower Fairbanks "Z" Engine, 10-ton Fairbanks Scale, Strong-Scott Dump.

Kerr, Gifford & Co. have leased for a long term of years the property of the Union Pacific Railway recently bought from the Sperry Flour Company at Portland, Ore. The deal did not include the milling machinery. The new lessees will spend about \$750,000 on the property and will convert it into the largest privately owned grain handling plant on the Pacific Coast. The present capacity is 1,100,000 bushels, which will be increased to 1,300,000 bushels. The bulk grain storage will be increased from 500,000 to 750,000 bushels. The docks have capacity of 600,000 bushels sacked grain.

SOUTHERN AND SOUTHWESTERN

A grain elevator is being built at Hart, Texas, for L. J. Halbert.

George A. Stover has bought the Marshall Elevator at Marshall, Okla.

A \$15,000 structure is being built at Duncan, Okla., for the Powell Grain Company.

Several improvements have been made to the elevator of Ed Jenkins at Medford, Okla.

A 25,000-bushel elevator is to be built at Mouser, near Hooker, Okla., for Hopkins & Mason.

The Farmers Union Co-operative Exchange of Okeene, Okla., has installed a grain cleaner.

The Farmers Co-operative Association of Hobart, Okla., is rebuilding and enlarging its elevator.

The grain elevator at Gage, Okla., has been bought by the Farmers Co-operative Association.

A 25,000-bushel elevator is to be built at Adrian, Texas, by J. P. Collier to handle this year's crop.

The elevator of the Noble Gin Company at Noble, Okla., which burned last March, is being rebuilt.

The Farmers Elevator at Clyde, Okla., has been leased by the Blackwell Mill & Elevator Company.

The Pryor Lumber & Grain Company of Pryor, Okla., has added a new building and new equipment.

The Quitaque Coal & Grain Company of Quitaque, Texas, is planning the erection of a grain elevator there.

A new grain elevator with capacity of 25,000 bushels is to be built at Silvertown, Texas, for W. T. Graham.

The Harvest Queen Mill & Elevator Company of Plainview has completed a new elevator at Petersburg, Texas.

A new sheller and shuck press have been bought and installed in the elevator of M. A. Keller at Devine, Texas.

To conduct a general grain business the Panhandle Grain Company has been incorporated at Amarillo, Texas, capitalized at \$5,000. W. A. Mar-

tin, Harry Johnson and Leo Potishman are interested.

A 20,000-bushel elevator is being built at Panhandle, Texas, by Dorsey & Johnston. George Knittle is manager.

A grain and feed business is to be conducted at Atoka, Okla., by R. E. Barnum, who has been in Cherokee, Okla.

A grain elevator at Watonga, Okla., has been bought from the Marshall Grain Company by George A. Stover.

J. M. Billingsley has bought a part interest in the Dayton (Tenn.) Hay & Grain Company, flour and feed brokers.

The Hogan-Hayden Grain Company of Muskogee, Okla., has changed its name to the Bouldin-Thorn-ton Grain Company.

The Kingfisher Mill & Elevator Company of Kingfisher, Okla., is building a hollow tile warehouse. It will be 50x140 feet.

J. N. McLaughlin succeeds A. R. Hacker as manager of the grain department of the Enid Milling Company of Enid, Okla.

James Byrne has bought the old elevator of D. K. Barrett at Coyle, Okla., recently and has remodeled it throughout.

The elevator of the Baker Bros. at Waynoka, Okla., has been bought by the Oklahoma Wheat Pool Elevator Corporation.

The elevator of the Kell Milling Company at Davidson, Okla., has been bought by A. F. Gaston and will be moved to Oklaunion.

The C. E. Sharp Elevator at Fargo, Okla., has been leased by M. A. Barbour. He will operate both elevators at Faro and Tangier.

R. B. and Fred Page, under the name of the Page Elevator Company, are operating an elevator at Allen, Okla. Fred Page is manager.

The Piedmont and Yukon, Okla., elevators of the Oklahoma City Mill & Elevator Company, have been sold to G. F. Gossett of Piedmont.

L. A. Dungan has bought the business of L. O. Street and H. L. Street at May, Okla., and will operate as the L. A. Dungan Grain Company.

Charles Mullen, Bert B. Willis and O. P. Willis have incorporated the Farmers Elevator Association of Canton, Okla. Its capital stock is \$10,000.

Interests of Memphis, Tenn., are planning the erection of a large grain elevator there. The Upper Mississippi Barge Line Company is interested.

I. L. Stephenson is now manager of the Waukomis Mill & Supply Company of Waukomis, Okla. He was former manager of the elevator of W. B. Johnston at Bison.

Frank Vandever, G. F. Patterson and W. O. W. Boen have incorporated at Oklahoma City, Okla., as the Oklahoma Grain & Commission Company. Its capital stock is \$5,000.

A. R. Hacker is to engage in the grain business at Enid, Okla., as the A. R. Hacker Grain Company. He was formerly manager of the grain department of the Enid Milling Company.

The elevator formerly operated at Bison, Okla., by W. B. Johnston has been leased by W. J. Baines of the Star Mill of Hennessey, Okla. Harry Minton of Hennessey will be manager.

The Farmers Grain Exchange of Sulphur, Okla., is building additional storage capacity and a new building to house a mixing plant. This includes mixer, elevator, motor, steam boilers and pumps.

The grain elevator at Kildare, Okla., has been leased from A. W. Dean of Guthrie, administrator of the John Dean Estate by the Oklahoma Wheat Growers Association. Avis Atkinson of Kildare will be manager.

Three of the elevators of L. O. Street of Woodward, Okla., have been sold by him. That at Loveland was sold to Roetker & Butcher; at May to Duncan Grain Company, and Woodward to D. D. Brubaker.

The interest in the Minco, Okla., elevator of the Laughlin Grain Company has been sold to the El Reno Mill & Elevator Company. William Penwright, manager of the Laughlin company, will go to Calumet, Okla.

The 10,000-bushel elevator of the Wheeler Grain Company at Oakwood, Okla., has been bought by B. B. McAvoy and J. W. Mathews who will operate it as the Farmers Elevator Company. The company has also leased the Wheeler Grain Company's elevator at Nobscot.

Clarence G. Wilkins has formed the Wilkins Grain Company at Fort Worth, Texas. He was formerly manager of the Fort Worth office of the Uhlmann Grain Company. He will operate as a brokerage and consignment house and also specialize in handling wheat for mills.

The Jones-Hettelsater Construction Company of Kansas City, Mo., has the contract for the 750,000-bushel wheat storage addition for the Pillsbury

Flour Mills Company at Enid, Okla. The original building contract called for 750,000 bushels, but the plant will have a total capacity of 1,500,000 bushels with the new addition. It will be completed by October 1.

MISSOURI, KANSAS AND NEBRASKA

The Haynes Elevator at Hansen, Neb., has been repaired.

C. K. Watson has bought the Farmers Elevator at Winnebago, Neb.

John V. Thompson is now in charge of a grain elevator at Rosemont, Neb.

The Everly Grain Company is building a new warehouse at Garden City, Kan.

A truck scale has been installed for the Paola Mill & Elevator Company of Paola, Kan.

The elevator of the Western Wheatgrowers Company at Kimball, Neb., is being repaired.

A 25,000-bushel elevator is to be built at Gordon, Neb., by Jenkins & Barstow of Lincoln, Neb.

The Mullaney Elevator at Ponca, Neb., has been equipped with new truck scales and dumps.

The elevator of A. Kassick & Sons of Milligan, Neb., which burned, will be rebuilt at once.

The Ashton Elevator at Mentor, Kan., has been leased by U. S. Kistler who will operate it.

O. E. Rice has sold his West Elevator at Athol, Kan., to the Athol Co-operative Association.

A grain elevator at Spring Ranch, Neb., has been bought from D. C. Hinds by Albert Heirbeck.

Improvements and repairs have been made to the Farmers Elevator Company of Wilber, Neb.

The Morrison Grain Company of Kansas City, Mo., is building a new elevator at Stratton, Neb.

The Farmers Elevator Company of Adams, Neb., has been reincorporated for a period of 50 years.

Improvements are being made to the Ransom (Kan.) Elevator preparatory to the harvest season.

The Colburn Bros.' elevators at Windom and Groveland, Kan., have been leased by R. C. Webb.

The Mann Grain Company has sold its elevator at Deepwater, Mo., to A. R. Britian of Humansville, Mo.

A corn cracker is being installed in the plant of the Arma Elevator & Mercantile Company of Arma, Kan.

Capitalized at \$10,000, the Farmers Elevator Company has been incorporated at Garden Plain, Kan.

Crispin & Crispin have leased their elevator at De Witt, Mo., to Gray & Son, who operate a feed mill there.

The elevator of the Farmers Elevator Company of Bennington, Kan., is being repaired and a new belt put in.

The Farmers Elevator at Soloman, Kan., has been leased by the Kansas Flour Mills Corporation for another year.

A new leg, belt and cups have been installed in the elevator of the Harbine Equity Exchange at Harbine, Neb.

An addition of 100,000 bushels capacity is being built to the elevator of the Hord Grain Company at Aurora, Neb.

Lightning protection has been installed on the elevator of the Moser-Larrick Grain Company of Brewster, Kan.

The old scales of the Dean Grain Company at Agra, Kan., are being replaced with a Fairbanks 10-ton truck scale.

New bearings and an air blast loader have been installed for the Partridge Elevator Company of Partridge, Kan.

The Farmers Elevator at Otis, Kan., has been bought by the Larabee Flour Mills Company of Kansas City, Mo.

Abner Nelson has bought the property of the Farmers Elevator Company at Curtis, Neb., and will operate it.

The Dixie Millfeed & Grain Company has been incorporated at Kansas City, Mo., by J. P. Ellison and D. H. Kresky.

New motor and buckets have been installed for the Farmers Co-operative Mercantile & Elevator Company of Amy, Kan.

A new auto truck dump and new Fairbanks-Morse Auto Truck Scale are being installed in the elevator at Wyoming, Neb.

A new elevator is being built at McCracken, Kan., for the Humburg Lumber Company. It will give that station seven elevators.

An addition has been built to the Farmers Elevator at Altamont, Kan. A new mixer is being installed for making feed.

The Illinois Central Railway Company is contemplating enlarging the Crowell Terminal Elevator at Omaha, Neb., making it into a house with capacity of more than 1,000,000 bushels. The Illi-

nois Central bought the elevator from the Crowell Elevator Company and leased it to the Crowell Company.

A new elevator is under course of construction at Rolla, Kan., for the Security Grain Company. Their old elevator burned.

The Scheideman Grain Company at Fellsburg, Kan., has been bought by the Larabee Flour Mills Company of Kansas City, Mo.

The Farmers Grain & Lumber Company of Creston, Neb., has sold its property at Creston to G. W. Viergutz of Columbus.

The interests of B. A. Parsons in the Hardtner Grain Company's elevator at Hardtner, Kan., have been taken over by A. W. Wetz.

The Farmers Union Elevator at Overbrook, Kan., has been remodeled and new equipment, including a cylinder corn sheller, installed.

Improvements are being made to the elevator of the Farmers Grain Association of Stromsburg, Neb., of which J. S. Laurie is manager.

The 20,000-bushel elevator of the Potts, Small Company at Pawnee City, Neb., has been bought by Rolland F. Ireland, who will overhaul it.

Improvements have been made at the Farmers Union Elevator at Lindsborg, Kan. A new steel grain bin has been installed and a new scale.

The elevator of the Farmers Elevator Company at Turon, Kan., has been leased by L. G. Simon, who is operating it as the Simons Grain Company.

A grain cleaner has been installed on the head of the leg in the elevator of the Equity Exchange Association of Liberal, Kan. U. W. Kent is manager.

A modern automatic scale with capacity of 10 bushels is being installed for the Farmers Co-operative Mercantile & Elevator Company of Dighton, Kan.

The Waterville Farmers Grain & Livestock Company has leased its elevator at Waterville, Kan., to the recently organized Waterville Grain Company.

The interest of Thomas Patterson in the elevator at Jasper, Mo., has been bought by his partner, R. R. Carter, who will operate it as the Carter Elevator.

C. S. Rainbow is now associated with the Nebraska-Iowa Grain Company with headquarters at York, Neb. He was formerly in the grain business in Omaha.

G. H. Smith and C. Lundsgaard has dissolved the partnership operating at Ruskin, Neb., and C. Lundsgaard is now sole owner of the Home Grain Company there.

The Oak Grove Grain Company has been incorporated by Hubert Roach and Fred L. Ferguson at Oak Grove, Mo. The company will also carry a full line of feeds.

The Mock Milling & Elevator property at Kene-saw, Neb., has been leased by I. E. Woolman, for the past two years general manager of the Real & Easterday Elevator.

Improvements are being made to the elevator of J. N. Harrison at Herman, Neb. A new 20-ton scale will replace the 10-ton scale and other improvements will be made.

J. W. McKee is now general manager of the Wells-Abbott-Nieman Company, Inc., of Schuyler, Neb., succeeding Gerald Ehernberger, who resigned because of ill health.

The elevator at Morrowville, Kan., formerly under lease by J. H. Huyck, has been leased by George Rose from the farmers. Mr. Huyck has leased the old Duff elevator.

The McGirk (Mo.) Farmers Elevator is to be rebuilt. It will be of larger capacity than the old one. A new set of Fairbanks-Morse Wagon and Stock Scales will be installed.

The plant of the C. E. Robinson Grain Company at Simpson, Kan., has been bought by Harry Ponton and Charles W. Stehley. The business will be conducted as the Ponton Grain Company.

The Farmers Elevator at Lyons, Neb., has been bought by a A. Moseman who owns one there. It will give him a combined storage of 40,000 bushels. He has installed a hammer mill for feed grinding.

An office has been opened in the Merchants Exchange Building, St. Louis, Mo., by the Checker-board Elevator Company, a subsidiary of the Ralston Purina Company. Joshua M. Chilton is in charge.

The elevator of the Grothe Bros. at Dorchester, Neb., has been covered with galvanized iron. H. L. Perry is manager of the company which has changed its name to the Grothe Bros. Elevator Company.

The 300,000-bushel Victoria Elevator at St. Louis, Mo., has been bought from the Wm. D. Orthwein Grain Company by the Plant Flour Mills Company. Morris A. Wilkins is general manager of the company. This will give the Plant mill capacity of more than 1,000,000 bushels, as it recently acquired

the Brooklyn Street Elevator which has capacity of 470,000 bushels. The Victoria Elevator will be operated as a private house.

The Osborne County Farmers Union Co-operative Association has leased the six concrete grain tanks of F. W. Gaunt at Alton, Kan., and is installing a six-horsepower Fairbanks-Morse Gasoline Engine and truck lift.

The elevator, coal sheds and hog yards at Bloomfield, Neb., have been sold by the First National Bank of Wausau to H. L. Anderson of Bloomfield. This firm was known as the H. F. Cunningham Grain Company.

The Wabash Elevator in North Kansas City, Mo., has been leased by the Wabash Railroad to the Wyandotte Elevator Company. It has capacity of 2,000,000 bushels and has been operated by the Staley Milling Company under lease.

The Raymond Grain Company of Raymond, Kan., has bought the property of the Raymond Grain & Supply Company of Raymond, Kan. It has installed a Strong-Scott Air Dump, enclosed Fairbanks-Morse Motor, direct head drive.

Two 7,000-gallon gasoline tanks have been installed for the Farmers Co-operative Union of Sterling, Kan., and two trucks have been bought for handling and distributing the gasoline and oil. A 20-horsepower motor was recently installed.

The O. M. Kellogg Grain Company of Denver, Colo., is to build a 50,000-bushel elevator at Alliance, Neb. The equipment will include a truck dump, worm gear drive and Fairbanks Truck Scales. The house is to be completed July 15.

A new company to be known as the Dannebrog (Neb.) Grain & Supply Company has bought the oldest elevator there from the Farmers Grain & Supply Company. Hans N. Hatt, W. F. Lauritsen, Thomas N. Lauritsen, Fred Guggenmos, I. C. Nielsen and Roy G. C. Appel are interested.

The 2,000,000-bushel Missouri Pacific Elevator at St. Louis, Mo., has been leased for a period of five years by the Continental Export Company. The company is headed by Samuel S. Carlisle. The Missouri Pacific Elevator was until now leased by the J. H. Teasdale Commission Company, which has retired from the elevator business.

CANADA

The Manitoba Wheat Pool has bought the Farmers Elevator Company's elevator at Pilot Mound, Man.

The Fegles Construction Company of Ft. William, Ont., is just completing a large storage plant for the Searle Elevator at Fort William. The company is installing a Randolph Direct Heat Drier in a special building so constructed as to operate independently of the rest of the elevator equipment. This plant has storage for damp wheat above the

drier and storage for dried grain underneath the cooler. Attached to this same building, is the furnace room which furnished the direct heat for the drying of this grain.

A new elevator is being built for the New Westminster Harbor Board at Anniesville, S. Westminster, B. C.

The contract has been let by the Vancouver Milling & Grain Company, Ltd., for a new warehouse at Duncan, B. C.

Six new elevators will be built, each with a capacity of 40,000 bushels, by the Gillespie Grain Company, Ltd., Winnipeg, Man.

A new elevator has been built at Armstrong, B. C., for the Armstrong Co-operative Exchange. It will have a capacity of from 4,500 to 5,000 bushels.

The Government Elevator at Port Colborne, Ont., is to be improved at an expenditure of \$25,000. The old machinery will be replaced with the latest models.

Work is progressing rapidly on the new 6,900,000-bushel elevator which the Saskatchewan Co-operative Wheat Pool is building at Port Arthur, Ont. It will give the pool a total grain storage of more than 50,000,000 bushels.

The Barnett & McQueen Construction Company has the contract for the erection of an elevator annex of 1,250,000 bushels' capacity to the present lakehead flour and elevator plant of the Ogilvie Flour Mills Company, Ltd., at Fort William, Ont. This will give the corporation storage capacity of 3,000,000 bushels at the head of the lakes. It will be completed November 1 of this year.

A merger of several Canadian terminal and line elevator companies, involving a paid-up capital of \$6,000,000, has just been completed. The new company will be designated the Canadian Consolidated Grain Company, Ltd., with W. H. MacWilliams as president; C. E. Austin, vice-president, and Charles Hayles secretary, and will occupy the present offices of the Canadian Elevator Company, Ltd., on the ninth floor of the Grain Exchange Building, Winnipeg. The amalgamation is an effort to reduce operating expenses and the following companies are involved: The Canadian Elevator Company, Ltd., the Dominion Elevator Company, Ltd., Victoria Elevator Company, Ltd., Crescent Elevator Company, Ltd., McCabe Elevator Company, Ltd., Empire Elevator Company, Ltd., Thunder Bay Elevator Company, Ltd., Total elevator capacity of 12,000,000 bushels will be owned and operated by the new company. The Empire and Thunder Bay terminal at Fort William and Port Arthur have space for 3,500,000 bushels, and 275 country elevators in Manitoba, Saskatchewan and Alberta have storage capacity for 8,500,000 bushels. All securities in the new company will be retained by present holders and no stock will be offered on the open market.

FIRES-CASUALTIES

Jefferson, Iowa.—The D. Milligan Elevator here burned on June 10 with a \$30,000 loss.

Victory, Wis.—A grain elevator here was damaged by fire.

Sudan, Texas.—Fire destroyed F. Z. Payne's elevator recently.

Holbrook, Neb.—Fire destroyed the Farmers Equity Elevator.

Blair, Okla.—A cyclone destroyed Zinn's Feed Store at this place.

Lyndora, Pa.—Fire destroyed the feed store of Frank Popchak here.

Edison, Neb.—The Rankin Elevator was completely destroyed by fire.

Foster, Mo.—Fire damaged the plant of the Farmers Elevator Company on June 10.

Baldwin Park, Calif.—Fire destroyed the Glesby Bros. Feed Store. It will be rebuilt.

Lohman, Mont.—Fire destroyed the elevator of A. S. Lohman with 10,000 bushels grain.

St. Paul, Minn.—The machinery, grain and building of the Gray Milling Company was damaged by fire.

Stockton, Calif.—The feed warehouse of the Stockton Stock Yards burned with 2,000 tons baled hay.

Bennet, Neb.—The F. M. Saum Elevator, under lease to G. E. Vinning, was burned on June 28. Four thousand bushels corn were also destroyed. The loss was \$9,000; part of this is covered by insurance.

Millard (Hoisington p. o.), Kan.—A dust explosion wrecked the Ochs Bros.' elevator here. Ben

Ochs, one of the owners, was slightly injured. The elevator, which had a capacity of 20,000 bushels, was empty.

Bennington, Okla.—Fire damaged the plant of the Bennington Grain Company with a loss of \$1,000.

Conway, N. D.—The last elevator here was destroyed by fire. The origin of the fire is not known.

Arapahoe, Neb.—The Rankin Bros.' elevator burned on June 17. Quite a quantity of wheat and corn burned.

Ellis, Neb.—Fire on June 27 destroyed the Farmers Grain Elevator with a loss of \$12,000. This is partly insured.

Donnybrook, N. D.—The Woodworth Elevator here burned on June 13 with a loss of between \$10,000 and \$15,000.

Norton, Kan.—The plant of the Johnson Grain & Coal Company was damaged by fire of undetermined cause on June 26.

Ethan, S. D.—The elevator of the Farmers Elevator Company was slightly damaged by fire caused by lightning on June 12.

Oakwood, Okla.—Fire destroyed the elevator here owned by J. W. Mathews and R. B. McAvoy on July 4. The loss was \$6,000.

DeFord, Mich.—Fires caused by a spark from a locomotive damaged the hay warehouse of the Cass City Grain Company on June 14.

Clarksdale, Ill.—The elevator of the Farmers Grain Company which was burned was partly covered by insurance of \$23,000. Spontaneous combus-

tion is believed to have caused the fire. The elevator will not be rebuilt.

Great Falls, Mont.—Fire damaged the pump house of the Barkemeyer Grain & Seed Company. The fire was of unknown origin.

Orient, S. D.—The plant of the Ree Valley Farmers Co-operative Association was slightly damaged by fire of unknown origin on June 7.

Petaluma, Calif.—Stock stored in the warehouse of the Coulson Poultry & Stock Food Company was damaged by fire caused by exposure on May 31.

Hamilton, Texas.—Fire damaged the property of the Hamilton Mill & Elevator Company with a loss of \$12,000. The loss was completely covered by insurance.

Grand Junction, Iowa.—The elevator here owned by the Milligan Company of Jefferson, Iowa, burned. The contents of 35,000 bushels grain were also destroyed.

Milwaukee, Wis.—The grain elevator of J. M. Riebs, Jr., burned with a loss of \$500,000. It is re-

ported that 100,000 bushels grain were stored in the elevator.

Dakota, Minn.—The elevator owned by William Husman was destroyed by fire. It is thought that the fire started from a spark from a passing train.

Emerson, Man.—Fire destroyed the elevator of the Lake of the Woods Milling Company with 2,000 bushels grain. A modern elevator will be built in its place.

Vanguard, Sask.—Fire destroyed the elevators of the Saskatchewan Wheat Pool and the Province Elevator Company with 7,000 bushels wheat. The loss was \$50,000.

Kirkland, Ill.—The elevator owned by the St. Paul Railroad Company was destroyed by fire. It had a capacity of 100,000 bushels. The fire was caused by lightning.

Beaver City, Neb.—The elevator here with 1,200 bushels corn was struck by lightning and burned. The contents were fully insured. Insurance of \$3,000 was carried on the building.

& Flour Company and the Gay Coal Company which bought the former after it had become successor to the Griffin Feed Company.

A complete feed grinding equipment has been installed for the Farmers Elevator Company at East Grand Forks, Minn.

A feed store has been opened at Forsyth, Mo., by E. L. Rutland, under the name of the Taney-como Provision Company.

A wholesale feed warehouse is to be built at a cost of \$5,000 for the Farmers Feed & Supply Company of Cedar Rapids, Iowa.

The Happy Feed & Seed Store was recently opened for business at Greenwood, Miss. W. M. Thompson of Belzoni is manager.

The Independent Gin & Trading Company at Depew, Okla., is succeeded by Geiser's Feed Store, of which J. O. Geiser is manager.

G. F. Stradley is now associated with J. D. Earle and will operate a feed store at Asheville, N. C., as the Earle Seed & Feed Company.

The Hardeman-King Company has established a new feed and seed store in the public market at Oklahoma City, Okla., with F. L. Nichols as manager.

The feed and coal business of Ferguson & Spence has been succeeded by the Hanover (Kan.) Grain, Seed & Coal Company, of which H. H. Gausman is manager.

A site has been bought at Buffalo, N. Y., by the McMillen Company of Fort Wayne, Ind., for a feed mill. The company operates mills at Fort Wayne and East St. Louis, Ill.

The Security Feed Company has opened at West Palm Beach, Fla., with J. H. Grogan manager. Mr. Grogan's sons, W. H., and Gordon Seith are also interested in the business.

The Miller Products Company of Waterloo, Iowa, has installed equipment for the manufacture of a line of grain feeds. The company has been making mineral for several years and the addition will add much to its facilities.

HAY, STRAW AND FEED

Ralph Miller will manage the new feed store at Aurora, Neb.

A feed store has been opened at Harrison, Ark., by A. W. Cralle.

A feed store has been opened at Obion, Tenn., by W. M. Morris.

The Farmers Elevator of Kensal, N. D., has installed a feed mill.

The Madison Mills (Ohio) Grain Company has installed a feed grinder.

A new feed store has been opened at Louisville, Miss., by Lester Morgan.

A plant has been opened at Junction City, Kan., by the Parks Hay Company.

W. J. Swan has started a wholesale and retail feed store at Willmar, Minn.

A batch mixer is to be installed for the Doeden Elevator Company of Oregon, Ill.

The Monahan Hay Company of Columbus, Ohio, has discontinued its hay business.

A feed store has been opened at Clay City, Ky., for Edward Rose and Judge Daniel.

William D. Russell now controls the General Feed Company of Vancouver, Wash.

A feed grinder has been installed by the Farmers Grain Company of Pond Creek, Okla.

A feed business is to be opened at Steven's Point, Wis., by Charles and Horace Pitt of Eden.

An addition has been built to the warehouse of the Norton Feed Company at Norton, Va.

Frank A. Ewing has bought the business of the Blackie Feed Company of Inglewood, Calif.

A feed store has been opened at Lomita, Calif., by the Valley Cash Feed & Poultry Market.

The feed business of Joe Free of Columbus, Wis., has been bought by I. Brier of Milwaukee, Wis.

A batch mixer has been installed by the Farmers Grain Company of Edmond, Okla., for feeds.

A distributing point has been opened at Eaton Rapids, Mich., for the Basic Feed Company of Illinois.

A corn cracker and feed mixer have been installed for F. I. Williams & Son of North Adams, Mich.

A feed grinder and batch mixer has been installed by A. Moseman at Lyons, Neb., in his plant there.

A new feed store has been opened at Petersburg, Ind., for Owen Hollan, who will handle feed, flour and meal.

Machinery for grinding feed has been installed for the Farmers Co-operative Grain Company of Plano, Ill.

An additional flour and feed warehouse is to be built for the Farmers Elevator Company of Hubbard, Iowa.

Capitalized at \$50,000, the Sloan Feed & Fertilizer Company has been incorporated at Black Mountain, N. C.

The Vaught & Vanardalen Feed Store at Martinsville, Ill., has been bought by W. T. McKee and son, Russell.

A warehouse will be built and feed mill installed for the Clarkson Milling & Grain Company of Clarkson, Neb.

A hammer mill with capacity of 5,000 pounds per hour has been installed for the Soderlund Bros.

Elevator Company of Madrid, Iowa. It is equipped with an 85-horsepower gasoline engine.

The coal and feed business of the Elmore Elevator Company at White Hall, Ill., has been bought by W. F. Ellington.

The Acme Feed & Fuel Company has been incorporated at Montgomery, Ala., with capital stock of \$20,000. O. J. E. Moreno is president; H. C. James, vice-president and O. K. Hogan, secretary-treasurer. It is a consolidation of the Acme Feed

OBITUARY

BARRETT.—James H. Barrett died on June 18 at his home in Des Moines, Iowa. He was in charge for years of the Iowa business of Lamson Bros. & Co.

BLACKBURN.—Frank Blackburn was killed on June 2. He was manager of the Rea & Page Grain Elevator at Malta Bend, Mo. He was killed when he fell from an upper window in the elevator.

BRANDS.—Fred Brands, Sr., and Edwin Brands, his son, died from blood poisoning at Beecher, Ill. The senior Mr. Brands was president of the Farmers Grain Company there, a position which he had held since 1912.

BRYANT.—George M. Bryant of De Pue, Ill., died recently. He was a retired grain, coal and lumber dealer.

COHN.—Phil Cohn died at Heppner, Ore., where he was in the grain business.

DAUGHERTY.—John Daugherty died recently. He was a member of the New York Produce Exchange.

DIX.—M. H. Dix, for two years owner of the Dixie Grain Company, died recently at Miami, Okla.

DUERRINGER.—J. Duerringer died from peritonitis on June 14. He was field man for the Hales & Hunter Company of Chicago. He was 37 years old.

FRITCH.—Levi Fritch died recently at Denver, Colo. He had for years been in the grain business at Longsdale, near Reading, Pa.

GARLAND.—Edmund A. Garland of J. B. Garland & Son, Worcester, Mass., died on June 25. He had been in the grain business for more than 30 years.

HEATHFIELD.—Arthur S. Heathfield died on June 25 at New Boston, N. H. He was a former member of the Boston Chamber of Commerce.

HILL.—William Teasdale Hill, president of the J. H. Teasdale Commission Company of St. Louis, Mo., died at Ashville, N. C., on July 6. He had been ill for some time.

KUEHL.—William A. Kuehl died aged 55 years at Rochester, Minn., following an operation. He was manager of the Farmers Elevator Company of Yale, S. D.

LICHTSTERN.—A. J. Lichtstern, millionaire Chicago Board of Trade operator, died, aged 66 years, at Chicago, Ill. Further details are to be found in the "Terminal Markets Department."

MAHOOD.—Edwin B. Mahood died on June 18 at his home in Pittsburgh, Pa. He was a retired grain merchant. He had also been in the flour brokerage business.

MC'CUNE.—James McCune died, aged 79 years, on June 9 at McKeesport, Pa. He was president of the Pittsburgh Grain Exchange and had been in the grain business for nearly 50 years.

MFARLAN.—Claude F. M'Farlan died at Louisville, Ky. He was formerly operator of a feed and grain business there.

MYERS.—Josiah D. Myers died from heart failure aged 74 years at Worthington, Ind. He was a retired grain dealer there.

RADABAUGH.—Walter E. Radabaugh died from pneumonia at Minneapolis, Minn. He was with the Big Six Samping Company and was well known in grain circles.

SIEVERS.—John A. Sievers of Brooklyn, N. Y., was found dead recently. He was a hay and grain dealer of Brooklyn, N. Y.

SPANG.—Charles Bracker Spang, a grain and lumber dealer of Georgetown, Ill., for 37 years, died at Danville, Ill., after several months' illness.

TRAVIS.—Wright S. Travis died recently at the age of 85 years. He was a grain and feed broker of the Produce Exchange, New York and was one of the old members of the exchange.

TROTTER.—William A. Trotter died after a lingering illness. He was a grain and coal merchant at Osmond, Neb., for years.

WOMACK.—R. V. Womack died on June 15 from heart failure. He was president of the M. H. Mill & Grain Company of Hugo, Okla.

TRANSPORTATION

ISSUES ORDER ON INDIANAPOLIS GRAIN RATE CASE

In a report written by Commissioner Taylor, the Interstate Commerce Commission has refused to alter the existing grain rate structure as proposed by the rail traffic men in the Hoosier state capital's Board of Trade case against the Akron, Canton & Youngstown line and other railroads.

The suspension case was an effort on the part of the railroads, so the railroad men said, to remove the cause of the Indianapolis complaint. The

schedules were protested by the Toledo (Ohio) Produce Exchange. They proposed increases from points in Ohio to Charleston and Huntington, W. Va. and other points in that state.

The commission found the proposed increase not justified.

DOWN TO THE GULF IN WHEAT BARGES

Grain and other products brought to Mississippi Valley docks during May, caused the Inland Waterway Corporation to operate at 70 per cent capacity even in that pre-harvest period, the Department of War reported last week.

The Upper Mississippi barge fleet operating between St. Louis and Minneapolis delivered 6,900 tons of freight, which was about 24 per cent of its capacity. The Lower Mississippi Division fleet operating between St. Louis and New Orleans delivered 118,200 tons of freight, which was about 83 per cent of its capacity. The Warrior Division, consisting of fleets operating between New Orleans and Mobile, and between Mobile and Birmingham delivered 26,300 tons, or approximately 58 per cent of its fleet capacity. As a whole the three operating divisions delivered a total of 151,400 tons or about 70 per cent of fleet capacity.

HAVIE REPLYS TO JARDINE

T. W. Havie, general manager of the Port of Montreal, has replied to the charges made by W. M. Jardine, United States Secretary of Agriculture, to the effect that United States grain is tampered with going through Montreal, and that there is collusion between United States exporters and the parties who do the tampering.

"It is the same old sea serpent which appears every now and then," Mr. Havie says. "The harbor commission does not tamper with anything. We deliver grain as ordered and United States grain going through this port is subject to inspection, the same as Canadian grain would be."

Mr. Jardine's allegations came in the course of a conference with Senators and members of the House of Representatives, met to consider the reasons why trade, and particularly grain trade, was being diverted from United States to Canadian ports.

The charge was made that United States grain was often rated one grade higher at Montreal than it would be at United States ports, which tended to injure the prestige of United States grain abroad.

40,000 GRAIN CARS SPOTTED ON SOUTHWESTERN SIDINGS

The most serious transportation problem since the car shortage in 1922 is faced by the railroads of the southwestern wheat belt in handling the 1928 crop, according to predictions of members of the Trans-Missouri-Kansas shippers' board, which met recently in Wichita, Kan., to discuss means of getting the wheat crop off to market.

The situation this year is complicated, it was pointed out, by the fact that not only are more combines being used in the Southwest than ever before, but the wheat crop, estimated at between 325,000,000 and 350,000,000 bushels for this section of the country, is the greatest in history.

"We estimate that 100,000,000 bushels of wheat will be transported in the first days after the movement starts," Clyde M. Reed, chairman, said. "To handle this crop means that the railroads must furnish 75,000 grain cars in that period. The railroads must move 3,000 cars a day in the 30 days after harvest if they are to prevent congestion. It is reported that 40,000 of the required 75,000 cars, were spotted on rail sidings throughout the Southwest before the first wheat began to move."

It is impossible, Mr. Reed continued, to compare this year with usual years. Kansas probably will

have between 160,000,000 and 170,000,000 bushels according to various estimates. There will be 19,000 or 20,000 combines in that state, and about 5,000 more in Oklahoma and the Texas panhandle.

A combine harvests and threshes about 300 bush-

els of wheat a day. This means that 7,500,000 bushels a day can be made ready for shipment in the Southwest. Railroads have promised that they will have 30,000 cars on their sidings in the wheat belt by July 1.

FIELD SEEDS

(Continued from Page 50)

latter state severe winter freezes, together with heavy, late pasturing of orchard grass meadows, were mainly responsible for the thin stands. In Missouri some damage was reported from late rains but stands in that state were much thicker and cleaner than those of last year, when they were unusually weedy.

The quality of the crop will average better than last year, particularly in Missouri, but is expected to be somewhat inferior in Kentucky. Harvesting began about the same time as last year in Missouri and Virginia but was later in Kentucky, Indiana and Ohio. Carry-over is reported to be less than normal and much smaller than last year, but somewhat larger than the unusually small (almost negligible) carry-over two years ago. The demand was reported to be good.

During June, 11,000 pounds were imported into the United States. Imports for the fiscal year ended June 30, 1928, amounted to 172,500 pounds, compared with 260,300 in 1927, 253,000 in 1926, 991,900 in 1925, 603,400 in 1924, and 840,500 pounds for the average annual imports for the past 17 years.

SEED CONTEST IN CANADA

A seed contest open to growers of wheat, oats, Clover and potatoes has been inaugurated by the Provincial Department of Agriculture of New Brunswick. Cash prizes are to be awarded for the highest standards attained by growers of the crops indicated. The sum of \$2,000 has been appropriated to be divided into portions of \$100 for each 20 competitions.

Qualified officials of the department will inspect fields of seed grain and a bin inspection of the threshed and re-cleaned seed will be made. The inspector will seal a sample of each lot of seed to be examined, tested for germination, purity and comparison with other samples.

IOWA SEED DEALERS ELECT

At the recent annual election of the Iowa Seed Dealers Association, O. G. Ouren of the Ouren Seed Company of Council Bluffs, Iowa, was elected to the presidency. The other officers are: A. M. Eldridge of the Henry Field Seed Company, Shenandoah, Iowa, vice-president; J. T. Hoffer of the Hoffer Seed Company, Nora Springs, Iowa, treasurer; Henry J. Kling of the Hamilton Seed & Coal Company, Cedar Rapids, re-elected secretary.

HOOSIER SEED NEWS

By W. B. CARLETON

Wholesale and retail seed dealers in Indiana report that June was a fair trade month, but that there has been some slowing down in business during the month of July. They are looking for a much larger trade during the fall months than they enjoyed during the corresponding period of last year. This year up to this time has been a much better year for the seed men than last year.

E. E. McAtee, who for many years was associated

with the Ohio Valley Seed Company at Evansville, has returned from a business trip in the east.

The Mt. Vernon Milling Company, Mt. Vernon, Ind., recently shipped 12,000 gallons of corn oil to the Van Camp Company at Louisville, Ky., and to Wilson & Co., Chicago. Two tank cars were necessary for the shipment.

Jacob Duerringer, 37 years, of Evansville, traveling salesman for the Hales & Hunter Feed Company, Chicago, died recently in a Chicago hospital following an acute attack of appendicitis. His body was shipped to Evansville for burial. He is survived by his mother and several brothers and sisters.

J. A. McCarty, of the J. A. McCarty Seed Company and former county agricultural agent of Vanderburgh County, recently made an interesting talk before the Center Township Farm Bureau near Evansville.

Guy Purcell, of the Purcell Seed Company, Evansville, is back from an extended trip on the road.

S. G. Ellis, for many years associated with the O. L. Cauble Mill at Salem, Ind., has leased the Perisise Mill in that town and now is engaged in the feed and seed business.

MILWAUKEE SEED NEWS

By C. O. SKINROOD

A near famine in seeds is the prospect for most lines according to the early reports of the Milwaukee seed dealers. The leading handlers report that the rains in June and part of July have helped materially the seed prospects so far as the stand was not killed, but there are so few good stands of Clover and so much of the area has been plowed up, that the best estimates are the Red Clover yield cannot be much over 50 to 60 per cent of a normal yield. The Timothy yields will also be very short but not as small as the Clover yields. Alsike is placed largely in the same class as Red Clover when it comes to damage, according to Milwaukee seedsmen. Sweet Clover, usually accounted as a much hardier plant than Red Clover, is also going to be a slim yield, according to the best estimates of the local dealers. Some of the leading concerns here assert that Sweet Clover will be about 50 per cent of normal.

The late demand for sudan grass and soy beans was not as good as expected, according to statements of Milwaukee dealers. The late buying of seed corn also proved to be disappointing, demand not proving to be as large as anticipated.

While corn prospects are excellent in the west, the contrary is true in most sections of Wisconsin, the seed handlers declare, so that the outlook is none too good for Wisconsin grown seed corn for the coming season. Much of the Wisconsin corn is only a few inches high and not nearly as large as it should be for this season of the year.

One of the most interesting sales of seeds for the past few weeks in Wisconsin was that of a Jefferson County farmer, R. H. Lang, who made a

CHAPMAN'S Red Top

MEAT SCRAPS - - 50% PROTEIN

Digester Tankage - - 60% Protein—Great Specialty

SIDELINES FOR ELEVATORS

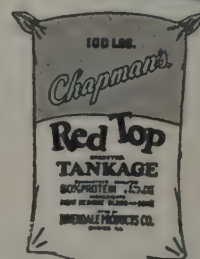
Special Odorless Bone Meal—Salt

RAW BONE MEAL — CALCIUM CARBONATE

Write or Wire

RIVERDALE PRODUCTS CO.

Offices: 105 West Adams Street, Chicago



60% Protein

large shipment of Wisconsin pedigreed Winter wheat to a grower in Odessa, Russia.

Due to the prospects of a very short crop of Clover seed, the Department of Agriculture at Madison is urgently asking farmers to save as much land for Clover seed as possible. The college states that in all probability the price of Clover seed will be very high, so that it will be a matter of just common sense to raise as much Clover seed as possible to take advantage of these high quotations.

NEW SEED TRADEMARKS

The following new seed trademarks were published in recent issues of the *Official Gazette* of the United States Patent Office: "Kellogg's" for seeds. Kellogg Seed Company, Milwaukee, Wis. Filed

Kellogg's
**GOLDEN
RULE**

December 15, 1927. Serial No. 258,947. "Golden Rule" for field seeds, namely, oats, corn, barley, wheat, rye, Clover, Timothy, vetch, rape, millet and grass. T. H. Cochrane Company, Portage, Wis. Filed October 11, 1927. Serial No. 256,432.

SUMMER SEEDS OPEN SLOWLY IN NEW YORK MARKET

By C. K. TRAFTON

Mainly as a result of the general backward season, developments in the New York seed market during the month under review were somewhat out of the ordinary. Although prices for many varieties remained nominally unchanged during the month, irregular changes were recorded in others, and the outstanding feature was the sharp advance in the basis for Kentucky Bluegrass.

Crimson Clover felt the effects of the backward season as much as, if not more, than any other variety. The buyers' refusal to meet shippers' ideas and their expectations of lower prices were based largely on the optimistic reports issued by the Department of Agriculture regarding crop prospects in France and Hungary. Hopes of a lower c. i. f. basis were subsequently realized, resulting in a moderate business for August arrival on a basis equivalent to about 12½@13 cents, duty paid. Because of this lower replacement cost holders of spot seed became more willing to make concessions and the basis was cut from 18 cents to 17½ cents. This reduction, coupled with the advent of better

(Continued on Page 58)

For Sale

ELEVATORS AND MILLS

TWO ELEVATORS FOR SALE

One 15,000-bu. and one 20,000-bu. capacity. Located at Bay City and Hager City, Wis., six miles apart on the Burlington Road. Can easily be operated under one management. One has a 15-h.p. and one a 25-h.p. gasoline engine. Dump scale and clipper cleaner at Bay City and two hopper scales at Hager City. All in good running condition. The Hager elevator is on the railroad right-of-way and leased at \$5.00 a year; the Bay City is also partly on the right-of-way and leased at \$5.00 a year. Two lots back of the elevator go with it. Good points for additional farm implements, flour and feed. Splendid opportunity for right party. Reason for selling, retiring from the grain business. For further particulars, write C. J. SWANSON & CO., Stockholm, Wis.

MUST SELL TO SETTLE ESTATE

Eight-thousand-bushel-elevator for sale, equipped with electric motors, car loader, hammer feed mill, Fairbanks Scales. Good trackage on Toledo and Ohio Central Railroad at Blanchard Station, Ohio. Three coal bins; good feed and coal trade community. \$5,000 cash. GARDNER BROS., Dunkirk, Ohio.

GRAIN ELEVATOR FOR SALE

The solid brick elevator (fireproof), formerly owned by the Farmers Elevator Company of Montevideo, Minn., is now being offered at a sacrifice price by the receiver of the defunct First National Bank of Montevideo. Thirty thousand capacity; modern equipment, also includes office fixtures, flour warehouse, brick office and scale house. Must be sold at once for cash to close up the affairs of the bank. For particulars, write or see CHAS. F. KNAPP, Receiver, Montevideo, Minn.

Miscellaneous Notices

WANTED

Millwright and machinist wants work. First-class, all-around man; understands both wood and iron construction, pipe fitting and electrical work. Not afraid of hard work. Will go anywhere and give first-class reference. WM. T. BIRD, P. O. Box 233, Spotswood, N. J.

FOR RENT

Well located grain elevator at Warsaw, Ind. Can combine feed grinding and coal business. THE STATE BANK OF WARSAW, Warsaw, Ind.

FOR SALE OR RENT

Biloxi, Miss., residence; modern conveniences. Arcola heat. Chicken ranch; truck acreage. City lot in Gulfport. Terms. MRS. S. A. MORRISON, Grenada, Miss.

HAY WANTED

Get full market value for your hay and straw. Ship to JOHN DEVLIN HAY CO., INC., 192 N. Clark St., Chicago, Ill. ALFALFA HAY for sale. Write for delivered prices.

FLOUR MILLS — FEED MILLS

Turn mill failures into successes. Turn unprofitable flour mills into successful feed mills. Get my inspection for success. I flow, plan, inspect, appraise, test, remodel and build flour and feed mills. Finest references. Prices reasonable. Consult me now. Get my books from the AMERICAN GRAIN TRADE, C. E. OLIVER, E. M. & M. E., Warsaw, Ind.

MACHINERY

FOR SALE

133 new 20x8 Superior D. P. Elevator Cups at \$1.00 each. OSCAR ERICKSON, Moline, Ill.

WILL SELL AT A BARGAIN

Three rebuilt No. 4 O. B. Wise Swing Hammer Feed Mills and one No. 4 Jay Bee Standard, guaranteed to be in first-class condition. O. B. WISE COMPANY, Knoxville, Tenn.

FOR SALE

Pulleys, 1,000; all sizes, solid cast iron, wood and steel split. Elevator belts and buckets and supplies. STANDARD MILL SUPPLY COMPANY, 501 Waldheim Building, Kansas City, Mo.

SEND FOR LIST

We are closing out the machinery in our feed mill and saw mill departments and offering some real bargains. FLAT ROCK MILLS, Flat Rock, Ind.

PRICED CHEAP TO MOVE

150-h.p. General Electric Motor for sale. Complete rolls, 9x18, 9x24 and 9x30; separators, scourers, purifiers, reels, scales, three plansifters, flour and bran packers, bran duster and transmission machinery. Outfit for complete 500-bbl. mill. BOX 256, Osceola, Wis.

ELEVATOR EQUIPMENT FOR SALE

Grain elevator at Pier B, Port Richmond, having been replaced by a modern concrete plant, is being dismantled. Entire equipment priced to insure quick sale. Write us your wants. F. JASPERSON, Manager, The Philadelphia Grain Elevator Company, Port Richmond, Philadelphia, Pa.

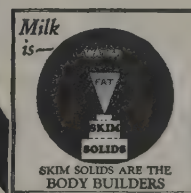
MACHINERY FOR SALE

1—24-in. New Unique Ball Bearing Attrition Mill with reversible drive. 1—Eureka Compound Elevator. No. 408 separator. Ring oiling bearings. Disc oiling eccentric bearings. 1—McDaniel Angle Screen Oat Separator, 80-100 bu. for removing oats from wheat. 1 No. 4 Prinz-Rau Cockle Machine. 1—Fairbanks Hopper Scale and Hopper. Above machinery all new and will sell at a big reduction.

Following second hand and in first-class condition: 1—22-in. Bauer Ball Bearing Attrition Mill, belt driven. Receiving Separators: 1—No. 403 Eureka Compound, nearly new; 1—No. 176 Eureka, single shoe; 1—No. 839 Wolf, nearly new; 1—No. 16 Prinz-Rau, 2 complete 50-bbl. "Midget" Marvel Mills; also large line of milling machinery of every description, elevators, belting, etc. 1—9x24 Sprout-Waldron Three-Pair-High Roller Mill, nearly new.

J. B. LIGHT, Avon, N. Y.

DRY SKIM MILK
IN
EGG MASH
Keeps the Hens Busy
LAYING



An average analysis shows:
37% Protein — builds muscle and meat
8% Minerals — builds strong bones
51% Lactose — energy and health giving food

Write for samples and information

AMERICAN DRY MILK INSTITUTE, Inc.
160 J North La Salle St., Chicago, Ill.

**COLORADO
ALFALFA MEAL**

All Grades and Grinds.
We specialize on Fine Ground for Poultry Mash.

Lamar Alfalfa Milling Co.
Lamar, Colorado

SEEDS BETTER SEEDS; BETTER CROPS
PRUNTY SEED & GRAIN CO.
9 South Main St. SAINT LOUIS

THE AMERICAN ELEVATOR AND GRAIN TRADE

Forty-Seventh Year

weather, served to stimulate buying interest somewhat, although up to this writing it was by no means general. Total imports for the year ending June 30 were placed at 1,346,100 pounds, compared with 2,385,000 in 1927; 5,765,000 in 1926; and 4,834,000 in 1925.

Vetch was also a source of complaint in some quarters, owing to the lateness of the season, no important business having developed up to this writing, in spite of a reduction in the spot basis from 10 cents to 9½ cents. The latter was owing partly to much larger arrivals, the total for the month being about 1,290 bags, compared with about 240 for the preceding month.

Fancy Kentucky Bluegrass was one of the "best sellers" early in the period, owing to the late season for lawn grass mixtures and as a consequence the spot basis was firmly maintained at 22½ cents for 21-pound seed and 21½ cents for 19-pound seed.

Fancy Redtop was also active early in the period and this, coupled with strong advices from the country, induced some sellers to advance the basis 1 cent to 17½ cents. With the subsequent subsidence of business last month's 16½-cent basis again became the general quotation.

SOUTHERN SEEDSMEN ELECT

The Southern Seedmen's Association held its tenth annual meeting at New Orleans, La., on June 21-23. At the election which took place at

that time, the following were chosen to serve during the coming year: President, William Hale of Louisville, Ky.; first vice-president, A. Reed Venable of Richmond, Va.; second vice-president, Martin J. Yopp, Paducah, Ky.; secretary-treasurer, Frank Love; assistant secretary, A. N. Tibbits; Executive Committee, Ray Hastings and H. M. Kilgore. A. T. De La Mare was made an honorary member.

An addition is being built to the warehouse of the Nogales Feed & Seed Company of Nogales, Ariz.

Larger quarters at 513 Walnut Street, Kansas City, Mo., have been secured by the Planters Seed Company. It is a three-story building.

The Pacific Seed Company has been incorporated at Portland, Ore., capitalized at \$10,000. The company will handle seeds, shrubs, bushes, etc.

A. C. Gillespie, J. C. Gillespie and W. H. Clark, Jr., have incorporated at Dallas, Texas, as the Eureka Seeds Corporation. Its capital stock is \$3,000.

The Sherman Seed Company of Sherman, Texas, and the Magnolia Seed Company of Dallas, Texas, have merged. Jewell F. Plangman is president of the consolidated businesses. Headquarters will be at Dallas, with branch houses at Sherman and Harlingen. The new concern is known as the Sherman-Magnolia Seed Company. It will have capacity of 50,000 bushels. L. A. Jones of Dallas is vice presi-

dent; A. M. Lawrence, secretary-treasurer. E. L. Odneal will be manager of the Sherman branch house.

Percy Klass has opened the Klass Seed & Commission Company at Columbia, Mo. He was in the commission business there with his father for 24 years.

A. J. Ogaard, executive secretary of the Farm Seed Association of North America, is now permanently located at 20 East Jackson Boulevard, Chicago, Ill.

Edwin T. Bennett is to be in the field seeds department of the J. Oliver Johnson Company of Chicago. He was formerly with the Albert Dickinson Company for 30 years.

The West Side Seed & Feed Company has been incorporated at Evansville, Ind., by Hetzel, Estella and Frank C. Schuler. The company will conduct retail seed and feed houses.

The Coos County Bent Seed Company has been incorporated at North Bend, Ore., capitalized at \$10,000. B. R. Chandler, Tom Stack and Ben S. Fisher are the incorporators.

EUROPEAN acreage of wheat so far as reported is 55,094,000 acres compared with 55,157,000 acres last year when those areas accounted for 78 per cent of the total European wheat area exclusive of Russia.

CHAMBER
OF
COMMERCE

MINNEAPOLIS

GRAIN
RECEIVERS

YOUR CONSIGNMENT HOUSE

W. C. MITCHELL COMPANY

SUCCESSFUL GRAIN COMMISSION MERCHANTS SINCE NINETY-FIVE

DULUTH

MINNEAPOLIS

GREAT FALLS

Cereal Grading Co.

W. T. FRASER, Vice Pres. & Mgr.

GRAIN MERCHANTS

CHOICE MILLING WHEAT & RYE

Twenty-five years' experience in selecting and forwarding choice wheat and rye for mills. Largest rye handlers in the West. Also shippers of oats, barley and screenings.

Operating Elevator L

612 Chamber of Commerce

MINNEAPOLIS,

MINN.

Robinson Telegraphic Cipher

Revised Edition

Cloth Binding \$2.00
Leather Binding 2.25

MITCHELL BROTHERS PUBLISHING CO.

431 S. Dearborn Street

Chicago, Ill.

BOARD
OF
TRADE

DULUTH

GRAIN
RECEIVERS

WHITE GRAIN CO.

SHIPPERS

FANCY OATS
MILL OATS
SCREENINGS

FEED WHEAT
BARLEY
RYE

Write for Samples and Quotations

DULUTH

YOU Can keep in touch with the news and reports of the Grain and Elevator world by reading the "American Grain Trade."

SUBSCRIBE NOW—\$1.00 A YEAR.

MERCHANTS'
EXCHANGE

ST. LOUIS

GRAIN
RECEIVERS

Nanson Commission Co.

(INCORPORATED)

GRAIN AND HAY

202 Chamber of Commerce

Write Us for Full
Information on
St. Louis Markets

ST. LOUIS

Consignments a
Specialty

Toberman Grain Company
GRAIN, HAY AND SEEDS

A long established house, energetic, enterprising and alert for your interests.

Let us handle your consignments

300 Merchants Exchange

St. Louis, Mo.

**"THE CONSIGNMENT HOUSE
OF ST. LOUIS"**

GRAIN, HAY and GRASS SEEDS

Picker & Beardsley Com. Co.

125 MERCHANTS EXCHANGE

BOARD
OF
TRADE

CHICAGO

GRAIN
RECEIVERS

Lamson Bros. & Co.
Grain
1874 Commission 1928
Merchants

Fifty-four Years of Service in the Grain Trade

166 W. Jackson Boul.
and
8 Board of Trade

Chicago

DOERN-SCARRITT-HANNAH CO.

FORMERLY
POPE & ECKHARDT CO.
(ESTABLISHED 1873)

COMMISSION MERCHANTS

111 W. JACKSON STREET

CHICAGO

SEVENTY-SIXTH ANNIVERSARY YEAR

J. H. DOLE & COMPANY

ESTABLISHED 1852
George S. Dole, President Frank Hines, Sec. & Treas.

Commission Merchants, Grain and Seeds

We solicit your consignments and hedging orders in futures

327 South La Salle Street, Chicago, Ill.

Branch Offices: 23 Chamber of Commerce, Peoria, Ill.
303 Merchants Exchange Bldg., St. Louis, Mo.

We Buy

Wheat—Corn—Oats—Barley
Send Samples

The Quaker Oats Co.
Cereal Millers

Grain Dept. 80 East Jackson Boulevard
CHICAGO

Rosenbaum Grain Corporation

Grain Merchants—Exporters—Importers

Cash and Futures

CHICAGO, ILLINOIS

Private Wires

E. W. BAILEY & CO.

COMMISSION MERCHANTS

GRAIN, SEEDS AND PROVISIONS

72 Board of Trade CHICAGO

Robinson Telegraphic
Cipher

REVISED EDITION

Cloth Binding \$2.00
Leather Binding 2.25

MITCHELL BROTHERS
PUBLISHING COMPANY

431 S. Dearborn Street Chicago, Ill.

H. M. PAYNTER

With ROGERS GRAIN COMPANY

Grain Commission

Correspondence Solicited

Postal Telegraph Building

CHICAGO

RUMSEY & COMPANY

FOUNDED 1867

COMMISSION MERCHANTS

BOARD OF TRADE

CHICAGO

J. C. Shaffer Grain Co.

GRAIN MERCHANTS

CHICAGO

Clement, Curtis & Co.

Illinois Merchants Bank Bldg., Chicago

Members of all principal Exchanges.
Private wire service to all leading cities
in this country.

GRAIN
EXCHANGE

NASHVILLE

BUYERS
&
SELLERS

DOG FEED
POULTRY FEED

BULK AND SACK STORAGE

DOG REMEDIES
POULTRY REMEDIES

G. P. ROSE AND COMPANY

Box 568 E

NASHVILLE, TENN.

**CORN
EXCHANGE**
BUFFALO
**GRAIN
RECEIVERS**

Send your consignments to
Seymour-Wood Grain Co.

BUFFALO,

N. Y.

**LEESON
GRAIN CO., Inc.**

GRAIN MERCHANTS

Consignments. Solicited. Returns made
within 24 hours after Grain is weighed.
**J. G. McKillen, Inc.,
RECEIVERS**

Consignments a Specialty

BUFFALO

NEW YORK

McConnell Grain Corporation

Strictly Commission and Brokerage

Buffalo

New York

Lewis Grain Corp.

A good firm to consign to

Corn—Oats—Soft Wheat—Barley

BUFFALO

NEW YORK

**PRODUCE
EXCHANGE**
TOLEDO
**GRAIN
RECEIVERS**

EVERY SHIPPER Should Receive
Southworth's daily bids—
WHEAT, CORN, OATS, RYE
Southworth & Company, Toledo, Ohio

JOHN WICKENHISER & CO.
Wholesale Grain Dealers
TOLEDO, OHIO
We make track bids and quote delivered prices.
Solicit consignments of Grain and Clover Seed.Members Toledo Produce Exchange and Chicago
Board of Trade.
Robinson's Telegraphic Cipher

REVISED AND ENLARGED EDITION

Cloth Binding\$2.00
Leather Binding 2.25
MITCHELL BROS. PUBLISHING CO.
431 S. Dearborn St., CHICAGO, ILL.

**BOARD
OF
TRADE**
INDIANAPOLIS
**GRAIN
RECEIVERS**
**THE CLEVELAND GRAIN
& MILLING CO.**

OPERATING FOUR TERMINAL ELEVATORS

Mighty Good Consignment Service

Ed. K. Shepperd, Manager

H. E. Kinney Grain Co.

COMMISSION—BROKERAGE

The Bingham Grain Company

Receivers and Shippers of

G R A I N

**BOARD
OF
TRADE**
PEORIA
**GRAIN
RECEIVERS**

Louis Mueller, President

F. W. Mueller, Sec. & Treas.

MUELLER
(Incorporated)

**GRAIN
COMPANY**
Receivers and Shippers **GRAIN**We Solicit Your Consignments of Grain
Room 39-41 Chamber of Commerce, Peoria, Ill.
P. B. & C. C. MILES
Established 1875 Incorporated 1910
PEORIA, ILL.
Handling Grain on Commission
Our Specialty
**W. W. Dewey & Sons
GRAIN COMMISSION**

26 Chamber of Commerce

PEORIA - - ILL.

BOARD
OF
TRADE

✂ KANSAS CITY ✂

GRAIN
RECEIVERS

BOOKS FOR GRAIN DEALERS

WALLS, BINS AND GRAIN ELEVATORS, by
Milo S. Ketchum. Illustrated, 556 pages.
Price\$5.00

ROPP'S CALCULATOR, new and improved edi-
tion, with complete grain tables, and other
invaluable discount and stock tables.
Price\$1.00

ROBINSON'S TELEGRAPHIC CIPHER, re-
vised and enlarged. Price.....\$2.00

UNIVERSAL GRAIN CODE, and Feed Mill
Supplement. Price\$3.00

Any of the above sent postpaid
on receipt of price.

MITCHELL BROS. PUBLISHING CO.
431 S. Dearborn St. Chicago, Ill.

GET OUR BIDS TO ARRIVE



CONSIGNMENTS

BOARD
OF
TRADE

☪ CINCINNATI ☪

BUYERS
&
SELLERS

THE EARLY & DANIEL CO.
HAY—GRAIN—FEED

SCHOLL GRAIN CO.
GRAIN EXCLUSIVELY

GRAIN
&
HAY
EXCHANGE

✂ PITTSBURGH ✂

GRAIN
RECEIVERS

HARPER GRAIN CO.
Wabash Building
Modern elevator facilities
at your command.

ESTABLISHED 1872
R. S. McCAGUE, Ltd.
Wholesale
Receivers and Shippers
Corn, Oats, Hay and Mill Feed
11th St. and Duquesne Way
Pittsburgh, Pa.

Fumigation Methods
By PROF. WILLIS G. JOHNSON
A complete practical treatise on fumigating
grain elevators, flour mills, warehouses, etc.
313 pages. Well illustrated. Price \$2.00.
MITCHELL BROS. PUBLISHING CO.
431 South Dearborn St. Chicago

GRAIN
RECEIVERS

✂ OTHER MARKETS ✂

GRAIN
RECEIVERS

CRAWFORDSVILLE, IND.

CRABBS REYNOLDS TAYLOR CO.
Crawfordsville, Ind.
GRAIN
Clover and Timothy Seeds
Get in touch with us.

The Real Market Place
for grain men is centered in
the advertising columns of the
"American Grain Trade"

LEADING GRAIN RECEIVERS IN ALL MARKETS

BUFFALO, N. Y.

Leeson Grain Co., grain merchants, consignments.*
McConnell Grain Corporation, commission and brokerage.*
McKillen, Inc., J. G., receiver.*
Seymour-Wood Grain Co., consignments.*

CEDAR RAPIDS, IOWA

Wilder-Murrell Grain Co., wholesale, grain, seeds, feeds.*

CHICAGO, ILL.

Bailey & Co., E. W., commission merchants.*
Brennan & Co., John E., commission merchants.*
Bridge & Leonard, hay, grain.*†
Clement, Curtis & Co., commission merchants.*
Doern-Scarritt-Hannah Co., grain and seeds.*
Dole & Co., J. H., commission merchants.*
Hoit & Co., Lowell, com. grain, seeds.
Lamson Bros. & Co., commission merchants.*
McKenna & Strasser, com. merchants.*
Norris Grain Co., grain merchants.*
Paynter, H. M., grain commission.
Quaker Oats Co., wheat, corn, oats, barley, rye.
Rosenbaum Grain Corporation, grain merchants.
Rumsey & Co., grain commission.*
Shaffer Grain Co., J. C., grain merchants.*

CINCINNATI, OHIO.

Early & Daniel Co., hay, grain, feed*†
Scholl Grain Co., grain exclusively.

CLEVELAND, OHIO

Cleveland Grain & Milling Co., receivers and shippers.*†
Shepard, Clark & Co., receivers, shippers, grain, millfeed, buckwheat.*

*Members Grain Dealers' National Association.

CRAWFORDSVILLE, IND.

Crabbs-Reynolds-Taylor Co., grain, seeds.*†

DECATUR, ILL.

Baldwin & Co., H. I., grain dealers.*

DES MOINES, IOWA

Lockwood, Lee, grain brokerage.*

DULUTH, MINN.

White Grain Co., grain and hay.*†

GREENVILLE, OHIO.

Grubbs Grain Co., E. A., wholesale grain, wheat, corn, oats.*

INDIANAPOLIS, IND.

Bingham Grain Co., receivers and shippers.*
Cleveland Grain & Milling Co., grain dealers.*
Kinney, H. E., Grain Co., grain, hay, feed.*†
Maibucher, C. Wm., Grain Co., grain commission.

KANSAS CITY, MO.

Moore-Seaver Grain Co., corn and oats.*

MILWAUKEE, WIS.

Kamm Co., P. C., grain merchants.*

MINNEAPOLIS, MINN.

Cereal Grading Co., grain merchants.*
Cargill Elevator Company, milling wheat.*
Mitchell Company, W. C., com. merchants.

NASHVILLE, TENN.

Rose & Co., G. P., seeds and grain.

OMAHA, NEB.

Updike Grain Co., receivers and shippers.*
Trans-Mississippi Grain Co., grain merchants.*
Butler-Welsh Grain Co., grain commission merchants.*
Omaha Elevator Co., receivers and shippers of grain.*

†Members National Hay Association.

PEORIA, ILL.

Cole Grain Co., Geo. W., receivers and shippers.*
Dewey & Sons, W. W., grain commission.*
Miles, P. B. & C. C., grain commission.*†
Mueller Grain Co., receivers and shippers.*

PHILADELPHIA, PA.

Rodgers, James J., flour, feed, grain.*

PITTSBURGH, PA.

Harper Grain Co., grain commission.
McCague, R. S., grain and hay.*†

ST. LOUIS, MO.

Martin Grain Co., rec. exclusively.*†
Mangelsdorf & Bro., Ed. F., seeds.
Nanson Commission Co., receivers, shippers.*†
Picker & Beardsley Com. Co., grain, hay.*†
Prunty, Chas. E., grain and seeds.
Toberman Grain Co., grain, hay, seeds.*†

SIDNEY, OHIO

Custenborder & Co., E. T., carlot grain.*
Wells Co., J. E., wholesale grain, seeds.*

SIOUX CITY, IOWA

Flanley Grain Co., grain receivers.
Terminal Grain Corporation, grain receivers.

TIFFIN, OHIO

Sneath-Cunningham Co., grain and seeds.

TOLEDO, OHIO

De Vore & Co., H. W., grain, seeds.*
Southworth & Co., grain and seeds.*†
Wickenhiser & Co., John, grain dealers.*
Zahm & Co., J. F., grain and seeds.*

WINCHESTER, IND.

Goodrich Bros., wholesale grain, seeds, hay *†

WOOSTER, OHIO

The Wooster Milling & Grain Co., grain dealers, operating 11 elevators.*

UNIVERSAL GRAIN CODE

(AND MILL FEED SUPPLEMENT)

Compiled for use of

GRAIN AND MILLING TRADES

of the United States and Canada

SEND FOR A COPY NOW. PRICE \$3.00.

Mitchell Brothers Publishing Co., 431 South Dearborn St., Chicago, Ill.



Flexible as a Belt—
Positive as a Gear—
More Efficient than Either.
(98.2% on actual test)

LINK-BELT SILENT CHAIN DRIVES

— $\frac{1}{4}$ to 15 H. P. in speed ratios of 1 to 1 up to 7 to 1 from a distributor near you. Book No. 725 makes ordering a simple matter. Send for a copy today. Link-Belt Silent Chain Drives are built

in sizes from $\frac{1}{4}$ to 1000 H. P. and over. Operate on short or long centers, quiet, smooth running, and are not affected by atmospheric conditions. Send for a copy of Silent Chain Data Book No. 125.

LINK-BELT COMPANY

3358

Leading Manufacturers of Elevating, Conveying, and Power Transmission Chains and Machinery
CHICAGO, 300 W. Pershing Road

INDIANAPOLIS, 200 S. Belmont Ave.

PHILADELPHIA, 2045 Hunting Park Ave.

Ashtand, Ky. Buffalo Birmingham, Ala. Denver Minneapolis
Atlanta Charlotte Kansas City, Mo. Detroit New Orleans
Boston Cleveland Huntington, W. Va. Milwaukee Baltimore

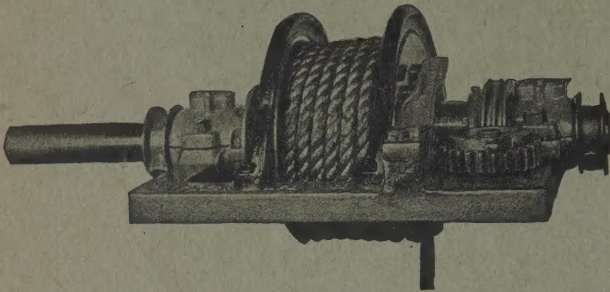
Dallas New York
Utica Pittsburgh
Cincinnati St. Louis

Louisville, Ky. Los Angeles Seattle
Wilkes-Barre Oakland Toronto
San Francisco Portland, Ore. Montreal

LINK-BELT

IMPROVED WELLER POWER SHOVEL

(PATENTED)



One of our customers who tried out a Weller Shovel said, "If an operator ever uses one of your new shovels he will never use any other make. It sure does the work and is easy to operate."

Claims of superiority for Weller Power Shovel—No counter weights—No counterweight ropes. Pulls at any point the shovel is stopped. Less Noise and vibration than any other shovel on the market. Positive in action. Never misses engaging the clutch. Easy on the operator. Occupies less space. Time is saved in erection. Shipped Ready to install.

Send for Power Shovel Circular

We Also Make

CLARK'S POWER SHOVELS

And a Complete Line of

GRAIN HANDLING EQUIPMENT



WELLER MFG. CO.

1820-1856 N. Kostner Ave.

CHICAGO, ILL.

Elevator Machinery and Supplies Flour and Feed Mill Machinery

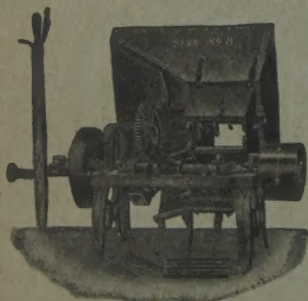
PULLEYS, SHAFTING, GENERAL POWER TRANSMISSION MACHINERY, ROLL GRINDING AND CORRUGATING. LARGEST FACTORY AND STOCK IN THE WEST.

GREAT WESTERN MFG. CO.

General Offices and Works:
LEAVENWORTH, KANSAS

Warehouse and Sales Room:
1400-1402 West 12th Street
KANSAS CITY, MO.

For Custom Grinding, Making Prepared Feeds
and in the Process with Other Machinery



BOWSHER FEED MILLS

always give a good account of themselves. They mean larger profits, ease of operation and satisfied customers.

Cone-shape Burrs, Large Hoppers, Rugged Construction and Ability to Mix Grains at Same Time They are Being Ground are Special Features. 12 sizes, 2 to 35 H.P. Sold with or without elevators.

Write for Catalog.

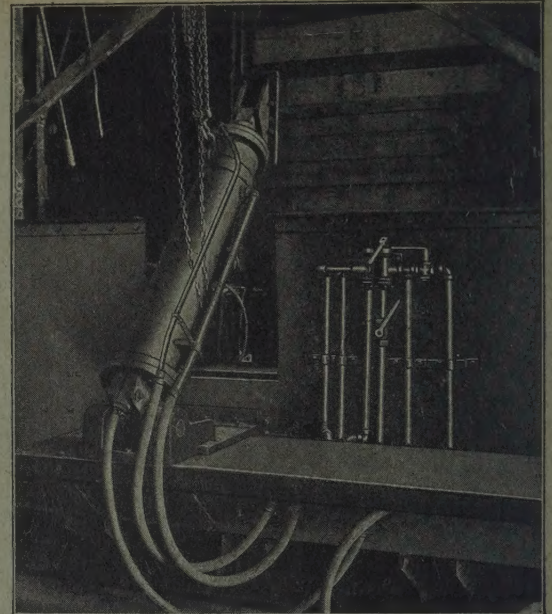
Mill can be opened like this in less than three minutes by withdrawing four pins.

THE N. P. BOWSHER CO., South Bend, Ind.



**PETERSON
GRAIN DOOR
REMOVER**

(Mfg. Under
License)



Remove Grain Doors This QUICK Way!

Grain doors are pushed in with this powerful tool in two minutes—easily, neatly, without breakage, with the

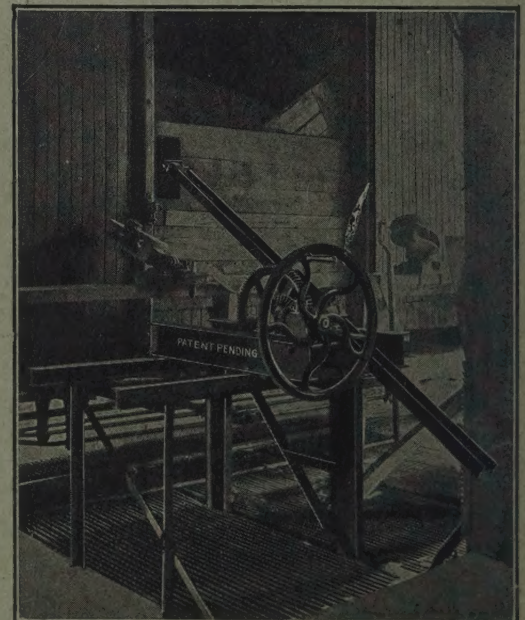
**Peterson
Pneumatic Grain Door Remover**

It requires only 100 lbs. air pressure to exert 6000 lbs. pressure on the door. The surplus air is available for cleaning, signalling and other uses.

PANK Grain Door Remover

A simple, hand-operated tool. Turning the fly-wheel develops a powerful leverage with enough pressure to easily open any door or entire section. Installed in either new or old elevators.

Grain door removers save labor, eliminate breakage and prevent costly unloading delays. Write us for full information.



Pank Grain Door Remover



**Increase Your Elevator Capacity
20% With Superior D. P. Cups**

They hold more, are placed closer on belt, discharge perfectly. Nothing to change but the cups. We carry full stocks.

Everything for Every Mill and Elevator

The Strong-Scott Mfg Co.

Minneapolis Minn.

Great Falls Mont.

In Canada: The Strong-Scott Mfg Co. Ltd. Winnipeg

